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THE

Southern Agriculturist,

AND

REGISTER OF RURAL AFFAIRS;

ADAPTED TO THE

SOUTHERN SECTION OF THE UNITED STATES.

B. R. CARROLL, EDITOR.

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"Good husbands will find the means, by good husbandry, to improve their lands; but it will not be amiss that they be put in mind thereof, and encouraged to their industries." *Bacon.*

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Mississippi
Ohio
Wabash
Illinois
Kentucky
Tennessee
Cumberland
Arkansas
Red River

Louisville

Carthage

Nashville

Huntsville

Tuscumbia

Decatur

Rome

Black Warrior River

Coosa River

Tennessee River

Fort Williams

Wetumpka

Selma

Montgomery

Columbus

Pensacola

Cincinnati

Frankfort

Lexington

Athens

Augusta

Macon

Savannah

Columbus

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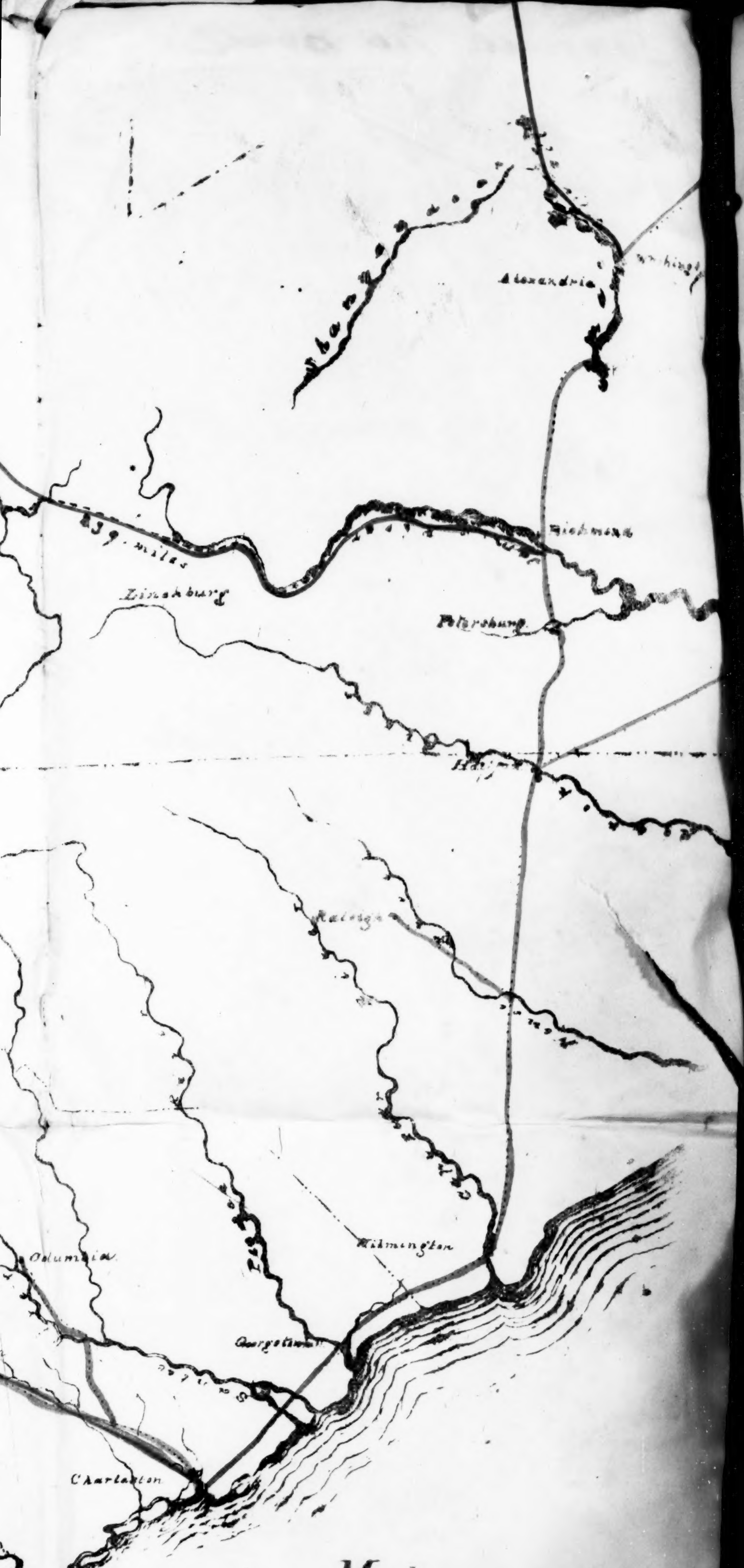
Pindertown

Brunswick

Andersonville



Map
of
Rail Roads & Canals
from the
South Atlantic Coast
to the
Tennessee River
and the
Gulph of Mexico.

THE

SOUTHERN AGRICULTURIST.

JULY, 1839.

PART I.

EDITORIAL AND ORIGINAL.

Advantages to Charleston and South-Carolina, to be derived from a Direct Trade; with reflections on the Rail Road and Canal Communications of the South. With a Map.

[CONTINUED.]

In the last two numbers of the Agriculturist, we have endeavored to prove that the only possible means of obtaining an independent and direct trade for the South, consisted in a concentration first, of the staple production of our soil, and secondly, in predicating upon this production a distinct and separate currency. He who has given his mind attentively to the subject, must feel the truth of these positions, and farther, he must be confident that if the first condition is attainable—a concentration of our cotton, the second is indispensable—a money power equivalent to it. For otherwise, should every bale of cotton produced in the South be centered at Charleston, and the fiscal power of New-York remain as it now is interwoven with that of Europe—the whole advantages of such a concentration would still accrue to the city of New-York.

The first step to be taken then, is to satisfy ourselves as to the possibility of concentrating a controling portion of our cotton staple, and if this prove to be the case, then to sue to our Legislatures for such an organization of the fiscal department of the South, as to satisfy European capitalists, that we ourselves will sustain a currency, predicated upon our peculiar soil and labor, and thus preclude the currency of the Northern States from the possibility of standing upon the same basis.

To insure the confidence of the South Atlantic States upon the subject of a concentration of cotton, a second map has been appended to this number of the Agriculturist, and in return for this cotton a report has been also furnished which will shew that of all the trade now passing from the North Atlantic to the West, one half at least must be transmitted by us, upon the earliest completion of the works herein referred to.

Let us, however, before we proceed, call the attention of our readers to the first general map which comprises the whole Union. We must understand this thoroughly before we can proceed to detail—for with those who are unacquainted with the spirit of our institutions, it might appear strange that we should be so excited upon the subject of Southern trade. Pass the eye over the whole confederacy, and then settle down upon the sectional line along the Southern boundaries of Virginia, Kentucky, and Missouri. The States North of this line are exclusively grain States. The States South of this line are devoted to the culture of cotton. The healthy climate of the grain States places every industrious member of society upon an equal footing with his neighbor, and the blessings of life, although not distributed in the greatest profusion, flow equally over the various classes of the community. In the South, the organization is precisely the reverse. A lower order of intellectual beings can alone encounter as laborers the malaria of our climate, and consequently instead of a general agrarianism, we are forced upon such institutions as will centre wealth in the hands of the few, that the many, being of a different race, may not suffer the encroachments of poverty—and the *greater the extent* to which this *concentration is carried*, the greater the purity of these institutions, and the more perfect the blessings which an all provident God has bestowed upon his black race.

It is necessary to bring the reader to this view of the subject to impress upon his mind the object and importance of the works in which the South is now engaged. Black labor industry, in every department must pivot upon a solid money basis. The planter must wield a strong physical force to overcome the changes of the seasons, and to compensate for the risks of the climate. His factor must furnish the necessary facilities to sustain this force, and the merchant with whom his factor deals

must be wealthy enough to trade with him upon the most liberal terms. Should we fail in either of these departments, the other must suffer, and all the advantages of a rich soil, and well adapted labor be altogether unavailable.

Let us now see if nature has done her part—if she has afforded us the necessary facilities. The eye of every Southerner must be made familiar with the map before us. See in what striking proximity the natural thoroughfares of all the States lay in view of these peculiar claims. Take first the great Tennessee. Rising on the Southern confines of the Northern States, it flows gracefully on to the Northern boundaries of the Southern States, and then as it were enticing us to follow her, strikes at right angles from her former course to the Gulf, and debouches into the broad Ohio—and at a point even farther North, than that from whence it took its rise. Nor does the Tennessee meet here a single stream—the congregated waters of the *North-West* seek at this point their natural outlet to the ocean, the impetuous Mississippi. This is emphatically the heart of the Union—starting from here we are to find our nearest, cheapest, and best artificial route to the ocean. And here the truth at once forces itself upon the mind—from this centre of Western navigation the products of the grain growing States may be thrown upon the ocean, through the Tennessee and Ocmulgee Rivers, in less time and with less expense than any artificial work in the Union. We would contrast it even with the Mississippi, for the same class of small boats, which trades upon the upper branches of this river, can deposit their freights at the bend of the Tennessee, and return in a much shorter time, and with much less expense than they could accomplish a voyage to New-Orleans and back. Trace the navigation of the Tennessee from its mouth to the angle before alluded to, and from this point draw a line to the nearest navigable stream of the Atlantic. You will find that Gunter's Landing upon the Tennessee, and Macon upon the Ocmulgee River, are the extremes of this line, and the distance between them some 200 miles. It is upon this route that the State of Georgia is now constructing a double track of rail way of thirty feet grade. Contrast this with the ascent of the Ohio to the great Kanawah, up that river 87 miles by a system of locks and dams—a rail-road thence of 139 miles with

heavy grades, and 239 miles of canal to Richmond, and yet this is the only Northern thoroughfare, which will contrast with the one being built by Georgia.

Turn next to the road from the Alabama river, at or near Montgomery, to the Great Bend of the Ocmulgee, some one hundred miles below Macon. By this route, the cotton growth of central Alabama is transported to the Atlantic over a rail-road of 200 miles, and in return the rich cargoes of Europe thrown back upon its wealthy population in the shortest time, and with the least possible expense.

Nor have we yet exhausted the many advantages which nature has bestowed upon us. New-York trades to the Ohio by a canal of 666 miles, and through a portion of the year only. She undergoes at least four transhipments, and at a cost for each of from 25 to 50 cents per ton. By this route she exchanges about forty millions per annum with the West. Now deduct from this canal 600 miles, strike out all transhipments, and let the trade be one hundred millions instead of forty millions, and you have the relative value of the work which is to unite the Gulf of Mexico with the Atlantic.

Let us recapitulate the internal improvement advantages of the South Atlantic over the North Atlantic.—A rail-road from Macon to Gunter's Landing, or from the Atlantic waters to the Tennessee River of two hundred miles—a canal or rail-road from the Ocmulgee to the Flint River of sixty miles, and a canal or rail-road from the Flint River to Montgomery upon the Alabama River, one hundred and forty miles. There cannot be a more satisfactory demonstration of the power of a people than is here shewn—a soil, the richest in the world—a labor, the most easily managed—a staple production anxiously sought for by all nations, and the means of concentrating these advantages not to be surpassed any where. The Southern States would be forgetful of their national character should they fail to place their institutions and industry upon the broad and commanding basis which nature has entitled them to.

We will now take the ground upon which we intend to establish the commercial power of Charleston in view of these improvements. By reference to the works North of us, and which have for their object the trade of the

Mississippi valley, we find that some 100,000 tons will cover for the present the amount of merchandize which is transported yearly, to and from the West by the city of New-York. The present avenues of communication are the Erie canal—the Pennsylvania works—and the Cumberland Road. Those that will be opened in a few years, are the canals from Washington to Pittsburg, and from Richmond to the Ohio. The cost of transporting a ton of goods across the lines now in use, to a common point—say Portsmouth upon the Ohio, may be assumed at 45 dollars New-York Canal—40 for the Pennsylvania works—and 60 for the Cumberland Road. The Virginia improvement, it is supposed, will transport a ton at 17 dollars to the same point, and it would be fair to suppose that the Washington or Maryland Canal will not range much beyond this latter price.

But this point, Portsmouth, which is seen on our maps, is upon the Ohio, even above Cincinnati. To contrast the advantages of Charleston with New-York, in the supply of the West, we must assume St. Louis, near the junction of the five great Western Rivers.

To reach this town from New-York, will cost at least $55 upon the New-York line—$50 the Pennsylvania,—and $27 the Virginia or Maryland—$10 being the cost per ton from Portsmouth to St. Louis by the Ohio river steam-boats.

As before remarked, the State of Georgia is constructing a double track rail-way of 200 miles from Macon, upon the Ocmulgee, to Gunter's Landing upon the Tennessee river. It is along this line that Charleston will throw her merchandize, and it is believed at an expense per ton of $19. Let us divide the route into its three divisions: 1st. Inland and Ocmulgee river steam-boat navigation to Macon. 2d. Rail-road across to Gunter's Landing, and 3d. Steam-boat down the Tennessee to the Mississippi. The class of boats from Charleston to Macon will cost $15,000—they will make eight trips in the year, and carry 150 tons per trip—allowing these boats 50 per cent. on their outlay, we will have the cost per ton to Macon, $3. For 200 miles rail-way, at 5 cents per ton per mile, gives $10 per ton, and from Gunter's Landing to St. Louis, the cost per ton will not exceed $6, the aggregate of which is $19. Making a difference in favor of the Tennessee route of $36 per ton over the New-York

canal—31 over the Pennsylvania works, and 8 over the Virginia and Maryland.

But it may be asked, what will be the amount of merchandize that will cross this work, if 100,000 tons is all the trade of New-York to and from the West. Or it may be said, that this very 100,000 tons will seek this avenue, when we remember that a ton of goods may be taken from any Northern port to the mouth of the Altamaha for three dollars per ton, leaving a difference still in favor of the Georgia work of 33, 28, and 5 over the other passes. But if the reader has been attentive to the different steps of our argument on Southern direct trade, he will find that Charleston, as the emporium of the South, has a claim at least to all those European goods which are consumed by the West. It may be also argued that a few dollars per ton on these light European articles will make but a slight difference in their per centage expense, as a ton might be worth $3,000. But the advantages of this work is shewn in the use which the West will make of it as an avenue for their products, which range at from three to five hundred dollars a ton, such as wheat and bacon—and upon which they would be saving from 8 to 10 per cent. by this route over the others. To redeem then the amount of European goods which Charleston would furnish, and which we will rate at $20,000,000, we must have bacon and wheat to the value of $20,000,000—which will give at least 40,000 tons. But the Southern market is the best also for Western horses, mules, hogs and cattle—which amount we will vest at Charleston in those Northern manufactures, of which Massachusetts alone produces $90,000,000 annually. It is therefore reasonable to suppose that in a few years, very nearly the same amount of goods will pass over the Charleston route, that passes over the New-York—one hundred thousand tons—worth $100,000,000. But it will be contended that the bacon and wheat of the West will descend the Mississippi, and pass the Capes of Florida on their way to Charleston and the North, to redeem the goods which may go over our road. Barring the fact, that the Mississippi is blocked up with ice a portion of the winter, and that for a part of the summer it is scarcely navigable—flour being sixteen dollars per barrel in the New-Orleans market at some seasons, and at others selling for almost

nothing, let us contrast the freight of a ton of bacon from the West to New-York via New-Orleans, with a ton via Charleston. From the map, it will be seen that the Tennessee passes through the most abundant meat and grain country. It would be reasonable to suppose that these articles, by the canals and McAdamized roads which make to this river, that bacon and wheat can be deposited at Gunter's Landing for three dollars per ton. From this point they may be delivered in New-York for 16 dollars, making in all, 19 dollars. The same articles could not be delivered in New-Orleans for less than $8 a ton, with the commissions, storage, &c. of that place—and from New-Orleans to New-York they must come to at least $10 per ton, making in all $18—nearly an equal cost. But look to the character of the trade. Through Charleston, it may be managed by small capitalists; from New-Orleans, the class of vessels running to New-York, is of the largest order, and their business consequently confined to a few. Another important consideration in connection with this, is the establishment of a constant thoroughfare. In addition to the periodical glutts and scarcities of the New-Orleans market—the Western flour is only fit for winter consumption, and the Western bacon, being prepared in early winter, is obliged very often to wait for early spring to descend the Mississippi, and early summer to take the Northern canals, while our thoroughfare is open all the winter.

But we have not yet exhausted the advantages of this route to Charleston, as the emporium of Southern trade. The Tennessee valley grows nearly 200,000 bales of cotton, and Macon concentrates over one hundred thousand, so that the trade of a line of steam-boats from Charleston to Macon, would give, in this item, nearly one third of the million of bales for which we contend. Let us now see what number of steam-boats of 150 tons burthen, will be required. Rating the whole tonnage from Macon at 100,000—forty boats, at eight trips per annum, will accomplish it, and the whole outlay for these boats, at $15,000 for cash, be $600,000.

So much for the position of Charleston in relation to the Tennessee improvement, and in contest with New-York. Let us now pass to a district of country which is not yet sufficiently appreciated by us, the valley of the Alabama and its tributaries, for which trade she must

contend with Mobile. The cotton of this section of Alabama is rated at 200,000 bales, confining ourselves to that which can be collected by Montgomery market for the Atlantic trade. In addition to this peculiar trade, we have upon the tributaries of the Alabama, one of the richest white populations in the Southern country, and as a consuming market, it cannot be surpassed. But say that the amount of trade, which shall be directed to this point, will only bear an equal proportion to the productions of the soil—eight millions of dollars—the trade then will stand at $16,000,000. But can this trade be possibly appropriated by a South Atlantic city? Let us test it. It is stated that a ton of merchandize, with its Mobile commissions and freights, will cost over $100 by river navigation to Montgomery, and we can take it with ease for $12 per ton from the city of Charleston. The line of boats to Macon, will pass the bend of the Ocmulgee, some hundred miles below that town, and to this point they may make fifteen trips in the year. The consequence is, that $2 per ton, will deposite the goods upon the rail-road at the bend, and from this point the distance is somewhat greater than 200 miles, which, at 5 cents per ton per mile, will give $10, or with the $2 added, $12, as stated. Let us next test the cotton. It costs at least, $1 50 in freight to Mobile, per bag, or $7 50 per ton—but a ton would cost $12 to Charleston—a difference of $4 50 per ton, or less than $1 per bag. But where is the cotton factor who would not give $1 a bag more in Charleston than in Mobile—when it is often sent from the Gulf to the Atlantic, at $3 per bale, and when one cent in the pound more, would give four times the amount of transportation. This trade we will rate at 10,000 tons. These two communications, we then contend, will give an increased business to Charleston of 100 added to 16=$116,000,000 of money.

But we have not yet ended our task. It is proposed that Charleston shall open an avenue to the Gulf of Mexico, and even divide with New-Orleans the trade which passes the Mississippi. In thirty to forty hours, a schooner will leave St. Joseph and reach the Mississippi river—and vice versa, carrying freight at $2 per ton,—and may we not safely say, that from Charleston to St. Joseph, a ton will be taken for $5. Let us examine the trade around the reefs of Florida. At least 100,000 tons pass

annually these Keys. Make this tonnage cross the Peninsula of Florida, by means of our steam-boats, and charge for each ton $1. This tonnage, with that of the Montgomery trade, which amounts to 10,000 tons, gives us $110,000 as the cost of freight from the Ocmulgee to the Flint Rivers, and would sanction the construction of a thoroughfare that would cost $110,000 for its annual support. But we transported goods for $2 per ton from Charleston to the Ocmulgee bend. Adding one dollar for crossing the Peninsular, and two dollars from the Western terminus of the communication to St. Joseph, gives us $5 for the entire cost from Charleston to the Gulf, and $2 from St. Joseph to the Mississippi, making $7 the freight per ton, from Charleston to New-Orleans. So that should the work from the Ocmulgee to the Flint River cost seven millions and a half, it would produce an annual profit of ten per cent. without adding to the freight of goods from Charleston to the Mississippi, for the ¾ per cent. insurance which is charged upon $100,000,000 of trade around the Keys, will give $750,000, or the interest at 10 per cent. on seven millions and a half. It is upon this communication with the Gulf, that Charleston must rely for her success as the South Atlantic Emporium—it is through it, that she is made perfectly independent of the connection which exists between New-York and New-Orleans, and by severing this connection she can alone hope to be successful in her efforts at an independent commerce.

Let us now aggregate the advantages of these three avenues to the West and South-West, and demonstrate from them the commercial and fiscal power of the South for direct trade. The tonnage that will cross the Tennessee via Macon, is assumed at 100,000 tons, valued at $120,000,000. The Alabama trade is rated at 10,000 tons, and valued at 16,000,000, and the trade across the Peninsula at 100,000 tons, and worth $100,000,000,—which gives in all, 210,000 tons, worth 236 millions of dollars—rather more than half the tonnage of New-Orleans by the Mississippi River, which is 400,000 tons, and one-fifth the tonnage of New-York by the Hudson River, which is one million of tons; and the whole amount in money, about double that expended by New-York alone upon European importations. It may be said, however, that a great portion of the 100,000 tons which are set down

to the Gulf trade will be merely transit. Although we are not satisfied that this will be the case, for we believe that the Mississippi trade will seek a market upon the Atlantic, as soon as the Peninsula is crossed by steam-boats—for small capitalists will be employed when these thoroughfares are opened; yet, allowing it, and taking the amount at $120,000,000, we have a sufficient commercial capital to satisfy the most ambitious.

The first practical question that arises is this: Will a Bank predicated upon the exports of the South, sustain a trade of $120,000,000. The answer is conclusive—issuing one dollar in credit upon sixty millions—the annual product of the soil, and we have the whole amount redeemable in the course of every two years. The second is, can our commercial outlays meet such a trade? With the drafts which our cotton factors will hold upon the annual crop, the Northern and European manufacturers would be glad enough to furnish us their wares. The conveyances which Charleston would be called upon to provide for the transmission of this trade to the West, would be eighty steam-boats, at $15,000 each—forty to Macon, and forty to the Gulf—the cost of which would be one million two hundred thousand dollars. But a Macon Steam-Boat Company has already vested $300,000 in a line from that place, and it is only required that Charleston should improve her *inland* navigation, that this line might not stop short of our wharves. As to the communication across the Peninsula, we have seen, that were the Insurance Companies of Charleston to construct it, they would take from the Insurance Companies of the North, the whole business of $100,000,000, which, at ¾ per cent., $750,000. Let them reduce the per centage to ¼, and their annual profit would be $250,000, or the interest at 10 per cent. of $2,500,000. The $500,000 which would remain, after deducting $250,000 from the New-York charge of $750,000, would be equal to a profit of 10 per cent, should the work across the Peninsula cost $5,000,000. It would be maintained by the dollar per ton, which we charged to make the transportation by steam, equal to the coast trade from Charleston to New-Orleans.

Let us now shew the advantages of such a consummation—first to the merchants of Charleston, and then to the consumers of the West. Rating the profits, commis-

sions, wharfage, &c. on one hundred and twenty millions of dollars at 20 per cent., the first class of interests will derive a yearly revenue of twenty-four millions dollars, twice as much as the present capital of the city ; and the Western buyer would realize at least 20 per cent. on the advantages of direct trade, as shewn in our first paper; 3 per cent. on the institution of a currency, which would equalize that of the whole Union ; 2 per cent. on superior intercourse, making 25 per cent. in all, or $30,000,000 annually, half as much as the annual production of the Southern States.

And are these unreasonable expectations? Have we no precedent for such? What was New-York before she opened her way to the West. The business of the Hudson amounted then to 400,000 tons; it is now nearly one million of tons. Philadelphia and Baltimore were, twenty years ago, her rivals ; she now monopolizes the trade of the Delaware, the Chesapeake, and will that of the Alatamaha, should we allow her. *But this river is the key to the West*, and when once the banner of Southern direct trade is unfurled upon it,—New-York will not only be driven North of Cape Hatteras, but Philadelphia and Baltimore be again enabled to enroll themselves upon the catalogue of commercial towns.

And what are the impediments in the way of such a realization? They may be reduced to two. The first is the same precipitate policy which has induced Pennsylvania to expend twenty odd millions in her blind opposition to New-York, upon improvements that cost her for their maintenance one million per annum more than their receipts—and which, to be completed, will require twenty millions more at least. This apprehension is drawn from the pertinacity with which public attention is kept to the Cincinnati road of 700 miles; when in opposition to the business of this road, Virginia is constructing a work that will take goods to Cincinnati for $19 per ton, when the Charleston road would cost at its present rate, $100 per ton ; on the score of travel, the case is worse—Georgia has constructed a road of perhaps two hours longer run—which has cost one half of the expense per mile of the Cincinnati estimate. We allude to the Augusta road. There certainly can be very little difference to Charleston by which route country merchants visit her ; and the profits of the most prosperous

travel roads—take for instance the Boston and Providence, are not so great as to be an object. As a freight road, the cost per ton to the Tennessee via Augusta, will be at least 50 dollars, the distance being 450 miles, and consequently the route by Macon, to which place steamboats will ply, must be the principal thoroughfare for trade. The second impediment to our object is, the greater interest which our interior towns take in supporting the commerce of New-York, than in building up *rivals nearer home*. Augusta has already taken her position in defiance both of Savannah and Charleston, and so soon as the Columbia road is completed, she too will have no further need for the funds of Charleston—and the credit of the whole State be brought to bear upon her importance, in contradistinction to that of the old seaboard town. This is a glance at the history of the times. It may be further exemplified in the manner in which Augusta met the proposition to establish the distinct Southern currency which we have here proposed, and which was brought before the last Convention assembled at that place. She is now the fiscal agent of New-York, and as long as she can wield the power which such an agency gives, it will be ineffectual to bring up any policy that shall be inimical to such interests. But these efforts fortunately vanish before the force of more powerful circumstances. The Alatamaha is to pour fourth an annual tonnage of from two to three hundred thousand tons—more than all the Southern rivers put together—and with such an incentive to the South, to secure the advantages of this trade, the power of petty interests will disappear.

It is to prepare the public mind for this important subject that these papers have been written. A concentration of one million of cotton, equal to forty millions of dollars per annum, and the establishment of a distinct Southern currency which shall give to the South the use of this annual product of her soil and labor. He who will rise from the consideration of this subject, without feeling himself induced to pursue it until it has been mastered; must read with little attention, or be wanting in that kind of science, which treats of the statistics, the internal improvements, and fiscal interests of his country. Let the detailed map here appended, be hung up before the desk of every merchant in our city, and let the sound of sixty millions of annual production, ring incessantly in

his ear—and we feel satisfied that every exertion will be made to prepare Charleston for a struggle, which every Southerner must feel it his duty to assist her in.

Emigration.

Mr. Editor,—There are few of us who have not relatives or friends that have emigrated to the West, and whose flattering accounts of that region do not render us uneasy, not to say unhappy at our situation here. Many of us have been there ourselves, and their deep rich soil, their luxuriant fields, their boundless discourse of hundreds of thousands and of millions, have seldom failed to make us look back with absolute contempt upon our own barren and spiritless land. With imaginations fired by the glow which rests and shines on every thing around, many purchase at once, and return home to pull up stakes and abandon all the endearing associations of infancy, youth and manhood, for the glorious prospect of unbounded wealth in more favored climes. If any come back to look once more upon his own fields before he determines to give them up forever, and the lapse of time, the change of scene, the comforts of home and friends, wear away his first vivid impression, and deprive him of the resolution to go—still, in most instances, the thorn rankles in his bosom, and he feels that he has made an immense sacrifice to his unfortunate attachment to the spot where an unkind destiny has cast his lot. Most probably he yet hopes, at some future period, to break away, and looks upon the soil and institutions of his father scarcely as his own—certainly as not his children's. I invite all such, and all who from the accounts of others may be troubled with this fell spirit of emigration to follow me in the calculation I am about to make, by which I hope to convince them that the difference is not so great as perhaps they imagine. But first, let them look around and scan more narrowly the circumstances of those whom they so much envy. I do not ask them to look at men who left us with reputations impaired or broken fortunes. To such men, almost any change is for the better, because

it gives new habits, new energies, and above all, new hopes. Their gain is not to be easily estimated—it is moral rather than physical. But look at those who left here "well to do at home," to better their condition. Count their slaves, count their acres, count their children—the noblest portion of their wealth. I do not ask you to count their friends, or to trace the connections which these children may have formed, or to enumerate those sad hours which bear them back to their native land. But ask them how much clear money they have on hand each year *after all is paid*, and then inquire how much property they can purchase with it. If you can perceive no great accession to their visible wealth or comforts; if they number no more slaves, and have no broader lands bought and *paid for*, what avails any high imaginary value, which in conformity with the fashion of that country, they may place on what they have; and how much sweeter are the bought and barren luxuries of a foreign land, because purchased with more money. Let me ask them to do one thing more if it is in their power, to go and inquire of their friends or relatives, if, laying aside all affectation, and speaking in the honest sincerity of their hearts, they do not wish they had never left their native State—nay, if they do not yet indulge the hope, vague perhaps, but very comforting of one day returning thither.

But to my calculations. I do not desire to appeal to feelings, but to the interest, and to show that the course which the heart so naturally dictates, the understanding may justly sanction.

I will assume that every ordinary cotton planter in this State can plant to each full task hand, ten acres of cotton and eight acres of corn, potatoes, &c. The quantity and the proportions vary I know. In the stiff up-country soil they may plant less; in the light pine lands, two acres more of each are frequently planted. In fact most of the middle country planters cultivate eleven or twelve acres of cotton, make provisions, and in the corresponding region in Georgia, fifteen acres of cotton, besides corn, is not extraordinary. If there is any one who cannot cultivate ten acres of cotton and raise an ample supply of provisions, he does not understand his business or does not give it his attention, without which no business can

prosper, and he should change his occupation or his habits, or—*emigrate.*

I will assume that each acre will produce 125 lbs. of ginned cotton. If it will not do this, under the system of resting, I shall recommend and lose my calculation on; it is not with cultivating, and while there is as much land in this State, in almost every section of it, to be had on such moderate terms, which will produce this much, he has no excuse for cultivating it. I say *ginned* cotton, because the moment you begin to estimate the product in cotton in the *seed*, you are in the skies. As our cotton is usually weighed wet and dry, basket and trash, by overseers and drivers, with all sorts of steelyards, no planter can tell what amount he is to sell, even if he keeps a statement of his pickings, much less can he from any idea from seeing the cotton in the field. I always inquire how much *ginned* cotton an acre will produce?—how much ginned cotton a hand will make? It would be nearly as satisfactory to know how many *piles* of rails he can split, as how many *bags* he makes. According to this estimate, a full task hand will bring into the market 1250 lbs. of cotton. He is not, however, a first rate planter who does not make 1,500 lbs. on land that will produce 125 lbs. per acre. I know many planters in this State who make more—and he who does not make at least 1,250 lbs. may be sure that there is something radically wrong about his business, which, if he cannot correct, he is not suited to the occupation. To plant, however, with success, and make this product moderate as it is, perfectly sure, every one planting in light and thin lands should have twice as much open land as he can cultivate, so that he can rest every other year, or plant two and rest two, which perhaps is preferable. He should therefore have thirty-six acres of open land for every hand, to which I will add, say fourteen acres of woodland, which will be amply sufficient for every purpose, and will make the aggregate quantity of land per hand, fifty acres. No planter should have more. I know that many do, not only here but at the West and every where else. One wants an *outlet* here or there—another is avaricious of all the privileges of his neighborhood—others think "land is safe property," and others again are ambitious of owning large landed estates. This is bad economy, and paying a heavy tribute to pride. There is nothing so

expensive as dead real estate, and numbers who debar themselves of many of the comforts of life, seem never to reflect on the thousands which they annually lose in interest on idle lands. It is vain for us here to purchase and hold lands, expecting their value to appreciate. The spirit of that sort of speculation has long since flown over us, never to return. Local causes may produce rises, and I believe there has been a steady, though slow one on pine lands for some years—but taking the aggregate value of the real estate of the whole State, I doubt if it is so great at present as it was forty years ago, inflated as prices are just now. At this moment, however, land such as will produce 125 lbs. of cotton, cannot be estimated higher than $5 per acre. If in some sections it is higher, it is lower in others, and probably that which costs more will produce more in like proportion. I could point out lands through the pine region, below the Ridge, broad enough to settle colonies, which will produce as much or more than my estimate, that can be had at from $1 to $5 per acre—the price depending more on the neighborhood than the quality—and, in all probability, these lands may not be much higher for generations, awaiting the slow process of increasing population to advance their value. The value of a full task hand may be estimated here at about $900—and his expenses on the plantation per annum, including his share of the overseer's wages, doctor's bill, clothing, iron, salt, bagging, mules, wagons, gear and meat, (if the planter cannot raise his meat, which in general may easily be done) and all other consumable plantation necessaries, I will put down at $50. Long experience and strict accounts have taught me that this is a fair average, though I imagine most planters will think it is too much—especially if they do not keep a full memorandum of expenses.

Now let us turn to the Western country. According to the opinions of the most accurate and judicious Western planters, I have seen, it may be assumed, that 2000 lbs. of ginned cotton per hand is a very good average crop—probably far above the average. We hear of immense productions of seed cotton per acre, and of bags per hand, which cannot be properly tested or estimated. I have no doubt 2,500 or 3000 lbs. are sometimes made, but I think I might say, without much fear of contradiction, that there are few planters who would not compro-

mise at 2000 lbs., *one year with another.* Assuming that ten acres of cotton and only six of corn are planted per hand, and that from the quality of the soil, it requires less rest, though the very best of lands require some, I will only allow for that purpose, and for small grain, &c. four acres more of open land, and ten instead of fourteen of wood-land, which will give an aggregate of thirty acres per hand. I dare say, as among ourselves, most planters there have more; and certainly this cannot be considered a large estimate, compared with that allowed our own planters. For this land, in almost any part of the West, with a tolerable settlement on it, and a small proportion of it cleared, at least $20 per acre must be paid—often much more—seldom less. I mean of course such land as will year after year make an average of 200 lbs. cotton to the acre. A good hand in the West may be set down as worth $1200—perhaps at this moment, on account of the extraordinary state of things, he will not bring it in *cash*, but I am told much more can be obtained for him even now *on credit*. I think, therefore, I am justified in valuing him at that sum. The annual expenses of a hand in the West, including all the items included in expenses here, may be fairly rated at $50 per man. Men with us at $75. Those who have tried it will hardly accuse me of exaggerating this item. If any planter is startled by the estimate I make of the plantation expenses, let him for five years keep an exact account of every cent expended for articles not raised, but consumed on his plantation, by no means excluding mules and wagon, which are usually worn out there, and his doubts will vanish.

Now, from all these data, or perhaps I ought to say assumptions, let us make the following tables, the more clearly to exhibit the difference between planting here and in the West.

Plantation in this State.

Product per hand of ginned cotton 1250 lbs. say 12 cts. pr. lb.		$150 00
Expenses of hand, - - - - -		50 00
	Nett profit,	$100 00
Value of hand,	$900	
Ditto of 50 acres of land, at $5 pr. acre	250	
$1150—Interest on this sum at 7 per cent,		80 50
	Surplus,	$19 50

Plantation in the West.

Product per hand of ginned cotton, 200 lbs. say 12 cts. - -		$240 00
Expenses of hand, - - - - - - - -		75 00
	$Nett profit,	165 00
Value of hand,	$1,200	
Do. of 30 acres land, at $20 pr. acre,	600	
$1,800—Int'st on this sum at 7 pr. ct.		126 00
	Surplus,	$39 00

Now from $39 00
Take 19 50

Leaves $19 50 as the difference per hand of planting in the West and here, which is equal to one and not quite one tenth of one per cent. per annum in favor of the West, and in a plantation of 50 hands, will amount to the sum of $975 per annum.

Another and perhaps a fairer way to make the calculation would be thus:—

					pr. ct.
Capital in the West per hand,	$1,800 :	nett profit $165 :	rate of int'st pr. an.		9 16
Do. here	do. 1,150 :	do. 100 :	do.	do.	8 69
			Shewing a difference of		0 47

Or not quite *one half of one per cent.* per annum, in favor of the Western planter; which, on an investment of $90,000, or 50 hands, would amount to about $450.

Or again, most persons would, perhaps, calculate differently from what I have done on the same data. They would say, for instance,— *pr. an.*

A plantation in the West and 50 hands at $165 nett inc. pr. hand, will make $8250
Do. here do. at 100 do. do. do. 5000

$3250

Making an apparent difference of 65 per cent. per annum in favor of the Western planter, which would be enormous, and justify every thing that has been said in favor of emigration. But this is a delusive view of the matter as can be clearly shewn by a very simple statement. As for example:—

Plantation and 50 hands in the West will cost at $1800 per hand,
$90,000 and make a nett income of $8250 per ann.
Do. do. here, will cost 1150 per hand,
57,500 and make a nett income of 5000 do.

$32,500 $3250

Now, $32,500 will purchase at $1150 per hand another plantation and 28 hands here; which, at $100 nett income each, will make $2800 per ann.

Making, *in reality*, on a difference of $450 do.

The precise sum before shewn to constitute the amount in favor of the planter in the West.

If these calculations are, as I believe correct, I might well ask if any one could be induced to break up here and emigrate to the West for such a prospect of bettering his fortunes? It may be said that if the value of a hand is, by the simple fact, of removal to the West, enhanced 25 per cent., it is not proper to charge that enhanced value to the aggregate of capital there, and require interest on it, when compared with capital here. When a planter remains here and expends here the produce of his capital there, it would appear as though there were some reason in the objection. I grant that if an owner can remain stationary, and by simply removing his capi-

tal, can increase it largely and make it produce as safely and as certainly there the same interest upon its increased that it did here on its original value, he would be a gainer. But there are many difficulties in the way of this view of the matter. First, the expense of getting the capital there. Secondly, the large expenditure in provisions, mules and utensils, necessary to put his plantation in operation—all of which I have embraced under the head of annual expenses, and not added to the capital by my calculation above. Thirdly, the great loss of time that must occur before land can be opened so as to make a full crop, even when a fair settlement has been purchased in the first instance; and fourthly, the great risk, not only in removing, but in keeping negroes in a clime notoriously unfavorable to their health, and where the mortality among them exceeds what it is with us, probably the full amount of 25 per cent. These difficulties are great drawbacks on the gain by the mere transfer of property, and I think would entitle me to pass over that point altogether; but let me add that I shall by no means allow a nett profit of $165 per hand for an average of years at 12 cts. for cotton to a planter residing here, and trusting his hands to mere overseers in the west. I would neither give them 2000 lbs. a year, nor would I pay their expenses for $75 per annum. In short, I believe all will agree with me, that the idea of living here and planting there with no other dependence than a hireling manager, is a perfect fallacy. If the planter removes with his hands, then the true measure of his profits is the rate of interest they produce him on his capital estimated at its value there, where its proceeds are to be laid out either in increasing his property or administering to his comforts. And here let me say, that the increase of one half of one per cent. will bear no proportion to the increase of his family expenditures, and that with even a plantation of fifty hands, his additional income of $450, or at most $975, will fall far short of his additional wants. Not only will he find every thing much dearer, but the style of living, so far as mere show and style are concerned, is far above ours. There is another drawback that I have not estimated, which subtracts largely from the profits of the Western planter. I allude to the inconvenience and heavy expense of getting his produce to market, and the enormous charges of all kinds upon it. This is a heavy item—but one which I admit is disappearing with the

advance of improvements—at least so far as the facilities of getting to market are concerned, but not, I believe, as regards the charges in the market.

In answer to all this, however, we are pointed to persons who are said to have made immense fortunes by emigrating to the West. How easy it would be to point in reply to the numbers who have done the same by remaining here? But have these fortunes been made by planting alone? In few or no instances I think I may freely say, almost all the nabobs of the West have dipped into land speculations, stock-jobbed, or shaved paper. A more searching question, perhaps, would be,—Have these fortunes been really made at all? Or do they exist only in imagination, or at least on paper? Is the money realized? Is it safely locked up in the Sub-treasury—even in bank bills, bad as they are in the West? Or is it still afloat in the credit currency of other shavers, jobbers and speculators like themselves. There are few, I fear, who would like to give a sincere answer to this question.

In short, Mr. Editor, every thing considered, I cannot but regard the whole scheme of Western fortune-hunting as a splendid delusion, and I trust that I may have convinced some others of the same opinion. Many a worthy and industrious citizen emigrates thither, encounters all the dangers and difficulties of the pioneer, fells the forests, opens the fields, tills the rich soil with unwearied care, and sends its ample products to the markets. His fortune grows apace—yet, looking around and comparing himself with others, he does not find that he approaches that immense wealth which he anticipated when he left home and friends, and the charms of civilization for the Western wilds. Nay, returning to his native country, he finds many who have increased their stores as rapidly as himself, and some even who appear to have outstripped him in the race. He is surprised, if not mortified, and regrets the happiness he has thrown away, in the vain expectation of realizing a brilliant fortune. Others who emigrate, finding that in a new country credit is boundless, soon get into their hands a large property. They open new plantations, build fine houses, set up in magnificent style; half the world regards them as magnificently wealthy, and they are firmly convinced of it themselves—until at last the bubble bursts—lands, negroes, houses, furniture and equipage, all vanish, and

they have the *glory* of being some millions yet in arrears. Such splendid effigies of wealth like these delude the credulous and enterprising, and allure them too often to give up the sober certainties of competency and comfort here, to meet, ultimately, the same miserable fate.

Let all those who are looking toward the West reflect maturely on what they do. If they are not satisfied with these views, (if they should chance to see them) let them inquire for themselves, and obtain their own data—but reduce every thing to the minute calculations which I have suggested.

Let no planters in this State, whatever may have been his success heretofore, despair of making at least 1250 lbs. of clean cotton to the hand. It can be done on almost any land in the State—he has only to look into his business himself, and know that it is properly managed. Let him open at once a double quantity of land so as to shift every year, or every other year, as suits it best. Let him plant at least ten acres to the hand, besides provisions—let him, in order to tend it, get half as many mules as he has hands, so as to run that many ploughs, when necessary, and if he has open lands and will put in small grain, he need scarcely feed his mules on corn when idle—let him plant in rows from 2½ to 3½ feet wide, according to the strength of the soil, and if his land is light, tend it with a scraper; if stiff, with the side harrows now in successful operation in the neighborhood of Augusta, Georgia, and other parts of this State, either of which will generally plough out a row at two furrows. Let him do these things, and plant early, and push his cotton from the start, and I will insure him that he can not only tend ten, but twelve to fourteen acres of cotton, and make not only 1250 lbs. but 15 and 1800 lbs. of ginned cotton to the hand, on a large portion of the lands in our State, which may now be had at the rates I have specified above.

I have written you, Mr. Editor, a much longer article than I had any idea of doing, and yet there are some parts that I have not touched, and others merely glanced at, while perhaps I may be accused of some digressions which have consumed valuable space. I send you, however the article, such as it is, and if my remarks shall induce any one of your readers to believe that our own land, if it is not (as I sincerely believe it is) "of every land the pride," it is, at all events, not very much less

favored than some others; and that if neither the ties of birth, nor of kindred, nor of friends, nor of country, can fix him here, it is, to say the least, doubtful whether his *interest* will be much advanced by leaving us, my pains will be fully compensated.

A PINE LAND PLANTER.

Cotton Culture.

Mr. Editor,—It is proposed in this communication to furnish a few rules best calculated to secure the highest production of cotton to the hand, and many of the secret causes of failure; and as the writer designs it more for the benefit of young than old planters, he hopes the more common suggestions it contains will be overlooked by those who might regard them as "a thrice-told tale."

In selecting lands for the cultivation of cotton, their location and quality are essential considerations. They should be fertile, and have a proper mixture of sand and clay.

If fertile, lay off nine acres to the hand; if old and thin, ten or twelve would be a fair crop. Lands that are stiff and old should be mellowed by early ploughing, when the soil is neither too dry nor wet, for all lands are injured if they do not pulverize in the ploughing, and when very dry they bake, and your working them is generally lost labor; if practicable, this ploughing should be before March. Where the land is flat, so that water stands, bed high; and if in mellow by one ploughing, bed up twice.

Open bed for seed with a narrow plough, followed by a press plough: soak the seed in stable or yard liquid manure, and after the soaking roll them in ashes. Sow them in direct lines, at least three seed to every inch; and cover, then, with a board nailed to the plough stock with a gap over the seed. A week before planting, the seed should be tried to know if they would sprout or vegetate by soaking. After a thick stand is up, run a narrow plough with a board to shove down on each side: in two or three days, follow this furrow by a plough to throw back the earth to the cotton. Examine the cotton roots to see if many are dead or belted by a black circle; if so,

chop out sparingly, and only where the stand is very thick, but if "all is well," chop out so as to leave a foot vacancy between each bunch. If the stand will not admit a stalk of sound cotton to every foot before you chop out, plough up and plant again if not later than the first of May: if however the stand appears safe when chopping out, run a plough after the choppers to throw up the earth, and fill the chop-holes.

Stand safe, begin to thin "all hands" by the hand, without the hoe, pulling up weekly, unhealthy stalks, and leaving those more vigorous and growing. Pull up also with the hand all the large weeds and grass *near the stalk.* After this is over follow with another furrow, then the hoe; and not a single stalk ever again to be cut or bruised. The two first ploughings should be *deep*—all after, *shallow;* and an interval of more than three weeks should never pass without a ploughing, until the crop is "laid by." If "the old" grass is killed, late ploughing is useless. The tasks in hoeing are one to two acres, or more properly, *according to the grass.*

What are the causes of failure in a cotton crop? They are many, but I shall enumerate but one or two of those most common, and which can be avoided. Thinning with the hoe, negroes will cut up cotton, I care not what vigilance is exercised: the worse the stand, the easier the after-work for them, and they know it. You may complain—you may punish—and yet turn your eyes away for ten minutes, and I'll engage as many stalks will be cut up by each hand within the time. Though it may be so, still it should not appear strange to the novice that such is the universal observation I undertake to say of every strict planter. Not one planter in fifty ever secures a stand where the hoe is used in thinning; their watchfulness or severity to the contrary notwithstanding; they may partially, but cannot fully remedy the evil with all their care and attention. The slave, as before observed, is interested to make the present and every future task easy to be worked; and by experienced craft, unless your eye is on the very stalk at the time, can cut it up, so that you will not be able to find whence it came. You must go before him and his hoe, and examine the stand, or in spite of yourself you will be duped and deceived.

If the overseer is over the hands, he does not like to bear the charge *of neglect in detection;* or is deceived and

joins the negro in affirming "no stand was there before"—"it died out," &c.

It requires too, a close eye and a steady hand to cut one stalk, and leave another within an inch or two of it; which hardly one hand in ten has the care or ability to do as it should be done, and then a lie follows as an excuse. Again: Where a bunch of grass is around the cotton, the back must be bent, and perhaps the digitals are to be pushed into the ground—all of which is "troublesome," when a dash of the hoe or an agricultural (not a rhetorical) flourish would sweep the whole, without any movement of the muscles.

The overseer does not like to stand from sunrise to sunset, watching every hand and every implement around him. Possibly he wanders off for recreation, and what is the result? The cotton is cut down—one stalk left, where five or six should be—the employer complains—and the agent or overseer in turn excuses himself as well as he can—he tells you it died, or that one stalk in two or three feet distance "produces as much;" so that your six bales to the hand, in expectancy, dwindles down in the eud to three or four. When too late, it will have been found that it had been better to have given such a man four or five hundred dollars to have left your place, to engage another who might have guarded against these tricks so generally practised in the effort to procure a good stand—provided there are even twenty hands under his supervision.

With a good stand and fair seasons, if the land is moderately productive, the yield should be 800 lbs. of seed-cotton per acre; and of nine acres, of course the produce would then be sixty-four thousand pounds in the seed, or six bales.

In this section of the country we plant entirely in the drill; and in my opinion the texture of the soil, together with the climate, renders it the more safe and correct way of planting; but not having thoroughly tested the mode of planting "in chops," I may not be therefore prepared to decide with accuracy upon this point.

It will depend pretty much on "remarks on former articles" whether I shall again trouble you and your readers, or not. FAIRFIELD.

PART II.

SELECTIONS.

Scientific Agriculture.

[FROM THE MAINE FARMER.]

Messrs. Editors,—The application of science to husbandry is of immense importance. Science alone, however, will not make a skilful farmer, more than a mere knowledge of books will make a skilful physician. Experience and a careful attentive practice, together with a knowledge of the science of medicine, and all other sciences which have any connection with it, are absolutely necessary in order to the making of a skilful physician. So a great amount of science, and a careful attentive practice is necessary in order to the making of a skilful agriculturalist. Our Legislature has manifested a commendable degree of solicitude in encouraging literature.

Our colleges, seminaries, and academies, have been fostered by the government—our common schools have been nurtured. It was the wish of the illustrious but departed Lincoln, expressed in one of his messages to the Legislature when Governor of Maine, that knowledge should be evenly spread over the State. All good literature should be encouraged, but that kind of knowledge which is most useful to the community should receive peculiar attention. No pains have been spared in regard to the medical department of Bowdoin College. Every facility has been afforded to medical students, to acquire a profound knowledge of their profession. Medical science is very useful indeed, but I think that agricultural science should claim the preference.

More than three fourths of the people of this State are farmers, who bear more than three-fourths of the public burden, and shall not this numerous and worthy class of citizens have one seminary of learning in the State for their special benefit! Perhaps the difficulties existing between our country and Great Britain, in regard to the North-eastern boundary have much engrossed the attention of the Legislature during the past session, or I should have expected something would have been done before this time, calculated to advance the science of agriculture. The corrupt government of Europe, the crowned heads, and their nobles, such as are, in America, denominated tyrants and despots, have fostered and encouraged agriculture, and have endeavored to avail themselves of every thing that science can do to further their

object. Agriculture is the chief corner-stone of national wealth, and the despots of Europe well know that to encourage husbandry is calculated to increase their power and the number of their vassals.

Some may call this only the multiplication of wretchedness, but be that as it may, the encouragement of agriculture in America is every way calculated to improve the condition and promote the happiness of our people, and give perpetuity to our excellent system of government. That Americans should be behind the despots and lordlings of Europe in giving encouragement to agriculture is shameful indeed. Such a state of things I am confident cannot long exist. America is destined to become the field of skilful agriculture. We shall outstrip British science and British skill. Till within a few years, nothing has been done by our Legislature in aid of agriculture. Latterly, however, a spirited encouragement to the farmer seems to have entered into the policy of our State, and almost every other State in the Union. Public opinion has of late been very much in favor of agriculture, and it is not a remarkable case to see appointed in our Legislature, each year, a committee, whose duty it is to investigate the farming interest, and ascertain what can be done to promote the agriculture of the State.

Large sums of money have been paid by the State, with a view to encourage the raising of bread-stuffs; this is excellent policy so far, but man cannot live comfortable on bread alone, the wants of every community are various. Something might be done by the State, and without a heavy expense too, calculated to advance every useful branch of agriculture if we could have an agricultural seminary where every branch of literature can be taught to farmer's sons, and where husbandry can be taught both scientifically and practically.

There should be a skilful farmer employed as a professor of practical agriculture, also a professor of agricultural chemistry, a professor of geology, and as many other tutors or professors as the best interests of the State requires. There should be also a chemical apparatus; a competent knowledge of chemistry cannot be easily acquired by books alone; if a good chemical apparatus is afforded, our farmers can carry specimens of soils, &c., to be chemically examined, and by so doing may acquire certain knowledge of facts which may enable them to improve their farms and increase their wealth. A good farm should be appended to the seminary, containing a variety of soils, and suitable for the purpose of testing agricultural experiments. At such a seminary, farmer's sons may defray all necessary expenses by their labor, and the poorest boy in the State may become a scientific farmer and a man of literature. If such a seminary should be established, every branch of literature should be taught, and all the sciences that can be of any possible advantage to the farmer should receive peculiar attention. Something then can be done every year to increase the sum of agricultural knowledge. Here let the science of the philosopher co-operate with the skilful practical farmer, and in order that the greatest number possible may be benefited by scientific researches combined with practical skill, let our agricultural newspapers spread the knowledge acquired, before the people. Thus our State may become in a measure one great agricultural school, and the other States of the Union may be benefited by our researches and discoveries. This, Messrs. Editors, is an imperfect sketch of what can be done, or perhaps what should be done. The State of Maine may be the first agricultural district upon earth if the proper means can be put into successful operation. I might speak of our superior commercial

and other advantages, but I waive the subject. If a good policy pervades our government, and all suitable measures are seconded by the efforts of the people our 'Dirigo' may shine brighter and brighter till we shall leave even the "Empire State" behind in population and wealth. R.

Rumford, April, 1839.

P. S.—Cannot the State herself be a skilful agriculturalist—raise the best of stock, and give an example which may benefit every farmer? Some farmers complain that they have not sufficient capital to practice husbandry in the best manner—but the State cannot lack money.

Varieties of Indian Corn.

[FROM THE GENESEE FARMER.]

The following is an extract from a paper read before the Agricultural Society of Fredericksburgh, Virginia.

The kind of corn cultivated, I believe to be of greater importance than is generally supposed. Any Virginian who has travelled northwards, must have observed the difference between their crops and ours. He must have seen that the stalks diminish in size, while the crop per acre, obviously increases; and yet ours is notoriously the soil and climate for growing corn. I think the difference may be attributed to the kind of corn cultivated, a kind which enables them to plant much thicker than we do. Here, most of us plant a large gourd-seed corn, shooting up a large stalk, bearing generally one, occasionally two ears, and not admitting thick planting. There, the stalk is low, is planted very thick, and bears two, three, and four small flinty ears. Not farther North than Pennsylvania, I have seen corn planted five feet by four, with three and four stalks in the hill. Counting three stalks at this distance, and allowing three ears to each, any given space, there, will yield seven or eight ears to our one; small ears certainly, but still large enough to account for the great superiority in the product per acre. I commenced with the old full-breed Virginia gourd-seed, and stuck to it for six or eight years; but finding that on common land many stalks were too late in curing, or did not ear at all, determined to change my seed. My next variety was the "Taliaferro white flint." This sort is touched with the gourd-seed, but it is superior to it in having a smaller stalk, ripening earlier, bearing more ears, and a harder and heavier grain. I then tried what is called the "Alsop corn," resembling the Taliaferro in other respects, but somewhat smaller in stalk, and superior in number of ears, often producing two, three, and sometimes a greater number of ears. This corn I still plant. I made one experiment with the Maryland twin corn, and thought it as prolific as the Alsop; but the grain being lighter and the stalk taller, it was abandoned. Last winter I purchased, in Washington, a small quantity of 'Baden corn,' and planted with it a rich lot of two acres. It came up and grew off well, was the tallest corn I ever saw, averaged five or six shoots to the stalk, and promised at one time to make a great crop. But it suffered nearly twice as much as the rest of my corn, from the heat or drouth of the summer, and was broken off by a wind in August, which did very little injury to the rest of the crop. It did not of course fill up our

ripen well, and I fed it to hogs. But as it certainly had more shoots than any corn I ever saw, I have saved a small portion to plant again. If it can be brought down to a proper standard, retaining its great number of shoots, it will probably turn out to be a very prolific variety.

It will readily be seen that I consider thicker planting than common essential in making heavy crops of corn per acre. But thick planting with a large kind, is out of the question. At the same time, it must be borne in mind, that as we increase the number, we diminish the size of the ears, and add to the labor of gathering and husking. Every judicious farmer will decide, from experience, how far he can carry this process; and will stop as soon as he begins to doubt whether he is paid for his additional labor. Dismissing all speculation on this point, I believe we may safely plant any small variety of corn, at the rate of one stalk to every ten square feet on tolerable land, which would give about 4360 stalks, and from six to ten barrels of grain to the acre. I will only add, in conclusion, that although I have frequently been deterred by the influence which custom exercises over the mind of every one, from planting corn as thick as I was inclined to, I have, in no one instance, exceeded the usual rate without adding to the crop.

WILLIAM P. TAYLOR.

Caroline County, Va.

Experiments with Leached Ashes.

[FROM THE CULTIVATOR.]

East Hartford, Conn., Feb. 1839.

Friend Buel,—As your motto is for the "improvement of the soil and the mind," I hope you will give publicity to a discovery in the preparation of leached ashes, or soap boiler's waste, so as to make them equally valuable, and perhaps more so, to the farmers of our vast interior, as to the cultivators on Long Island, where they are bought up at an expense of 35 to 50 cents a bushel, and considered a profitable investment at that. The vast quantities bought annually in this county, (where they are considered of little value, and of none on clayey land,) and shipped to Long Island, induced me to think that the saline matter in the soil and atmosphere, was more the cause of their wonderful effect upon vegetation, than any *inherent* quality in it. To give theory the test of experience, I mixed ashes with common salt, but the salt was too coarse and too long in dissolving, to combine chemically; the next was to sow the salt and ashes afterwards: this did better; my next to wet the dry unleached ashes with a strong brine, and after standing a sufficient time to spread readily with a shovel, applied them as a top dressing to turnips and potatoes. In this last experiment the success met my highest expectations; the potato crop was quadrupled, and the difference in the turnip yield still greater; but the soil as in the application of all high stimulants, should have a moderate dressing of *some* kind of manure, and it will be found in excellent order for grass or grain afterwards.

It may be observed of crops manured and dressed in this manner, that the leaves appear of a light pea green, instead of the darker green, denoting too much top—whilst the tuber of the potato, and the bulb

of the turnip, showed the whole strength of the plant to have centered there. To carry the analogy still further, I have given the land a liberal dressing of plaster after the ashes so prepared, but not the least benefit to the crop could be perceived, any more than if it had been used within a mile of the ocean—of course it was labor lost.

It is very desirable that some enterprising farmers of each county in the western part of yours, and of other States, where leached ashes are in abundance and useless, to try the experiment of wetting them when dry, with strong brine, no matter how old or stale; (if the price of salt is too high.) The lands found best adapted to this kind of manure, are the poorer description of sandy and gravelly soil, and this agrees perfectly with my short experience here; so far, then, nature is true to her own laws, and no doubt every farmer in our wonderfully active climate and productive soil, will find the same striking analogy verified by experience. The season is approaching for the proper time of trial—let it be upon corn, potatoes, grass, upon spongy wet land, or newly stocked down, turnips and wheat in autumn, and should it come up to the writer's expectations, I shall think my past life not wholly spent in vain.

Your's, respectfully, DANIEL EASTON.

Book Farming.

[FROM THE MAINE CULTIVATOR.]

Some people give their *knowing* heads a toss of contempt at the very idea of book farming. They want none of your newspaper theories and speculations about farming—not they! The knowledge which they possess, comes by intuition, we suppose, or the equally respectable and intelligent source—tradition. Their fathers know how to balance the bag on old dobbin's back, by loading one side with a stone equal in weight to the grist, on the other side, and so do they, wise souls! What good can such wiseacres derive from a book or a newspaper? Surely none. Avaunt—all ye Abercrombies and Franklins, ye Loudons and Powels, ye Cobbets and Fessendens, ye Buels and Colmans—what know ye about herds and flocks, labor-saving implements, chemical combinations, soils and manures, sowing and tilling, fencing and ditching? Is it possible that learned men should know any thing about the best modes of husbandry?

To be serious, however, there can be no doubt that many of the theories and speculations which have appeared in books and periodicals, professedly devoted to terraculture, have failed in point of practical utility: but what then? Are we to cast every fact aside, because it is written out by a friend to farming, and has found a place in a newspaper? No reasonable man will say this. On every thing else, people have derived benefit from reading the discoveries and experiments of others; why should farmers *alone* repudiate all information from such a source? It is prejudice to do so. There are men who have conferred great benefit on the world by their agricultural researches. Should they not be honored? But for the art of printing, how slow would be the progress of the various improvements that have been made? Let us not be so unreasonable as to indulge in this vain prejudice: but let us all who cultivate the earth, make, each, what improvement he can, and then throw the common stock together, through the medium of some agricultural publication, for the benefit of all concerned. In this way, a mutual benefit will be secured, and much hard labor will often be saved.

Butter Making.

[FROM THE NEW-YORK CULTIVATOR]

A nice process of butter making, as practised by John M. Weeks, of Salisbury, Vt., is given in the Yankee Farmer. Mr. W. makes three qualities of butter ; one, he says, worth 38 cents, being the pure butterycious matter, of exquisite flavor; the second, worth 19 cents; and the last 9 or 10 cents, a gluey substance, and insipid in taste. Mr. W. heats his milk, after the animal heat has passed from it, but to what temperature he does not say, and then sets his pans in cool running water; and when cold, they are raised, and the milk skimmed in six to eighteen hours. We *guess*, for the gentleman has not told us, that the first skimming is made before the milk is put into the running water, or perhaps before it is heated, and the last, at the end of the eighteen hours. The butter is salted and worked when it comes from the churn, worked again the next day, without cold water in any of the processes, and then packed tight in tubs, lined with bags, previously saturated with bees-wax, and covered on the top with a clean pickle. The great requisites in making and preserving good butter, are:—

1. That every thing should be cleanly in the whole process.
2. That the milk should be kept at a proper temperature, say from 45 to 55 deg., while the cream is separating.
3. That the cream should be taken off and churned, before its quality is impaired.
4. That its temperature should be from 55 to 65 deg. when put into the churn, and the churn should be moderate and uniform.
5. That salt, of the best quality, in sufficient quantity to suit the palate, should be blended with it at the first working, and the buttermilk completely got out by the butter ladle.
6. That the working of the butter should be repeated at the end of twenty-four hours, when the salt has become completely dissolved, and all the liquid extracted—and,
7. That it should be packed, without more salt, to make it weigh, in stone jars, in wooden firkins or tubs, such as will not impart to it any taint or bad flavor—and in such manner as will totally exclude the atmosphere.

Butter made in this way will be of fine flavor; and if put down and kept in this way, the flavor will be preserved for an almost indefinite period, if kept in a temperature below 70 deg. Water, mixed, either with the milk, the cream, or the butter, and especially soft water, adds nothing to, but materially abstracts from richness of flavor. We have no doubt of the position assumed by Mr. Weeks being correct, that milk skimmed at three different times, will give three qualities of butter—that being taken off first being the richest and most valuable.

The common remark of our good butter women, is, that "my butter is good enough" and many think so, whose butter is very inferior. But as the principal object of the dairy-woman is gain, and as butter will sell according to its intrinsic value, every one should seek to improve, if not to please themselves to please their customers, and not for the sake of "filthy lucre."

High Prices of Provisions and "Good Business Times."

[FROM THE NEW-ENGLAND FARMER.]

Great complaints are now made in all parts of the country respecting the exorbitant price of provisions. Beef, for example, in N. York, is stated to be at 28 cents per pound, and in Cincinnati, butter has been sold at 75 cents a pound, and potatoes at $1 25 cents per bushel.

Another curious fact is, that within the last two and three years, we have had large importations of the necessaries of life—butter, cheese, wheat, rye, barley, oats, and even hay from Europe; and which have, it is believed, commanded remunerating, in many cases, large profits.

The prices of agricultural products are, however, not in great disproportion to other matters. Labor of every description was never higher. Mechanical labor is extraordinarily high, carpenters demanding more than two dollars, masons three dollars per day; seamen's wages are enormous; fifteen, twenty, twenty-five dollars per month demanded; and house rents exorbitant. The expenses of living are, in most respects, advanced beyond all precedent, and absolutely discouraging to those who have to provide for their families, and those who would be glad to have families to provide for.

What is the account to be given of all this? This is a great question in political economy. We shall not attempt to go to the bottom of it; but shall suggest some causes which may have assisted in the result.

There were some accidental circumstances which have operated in the case, which are temporary in their nature, and must soon pass away. There are others of an abiding character, for which we see no immediate remedy. Within a short period we had two years of scarcity in respect to our great products, wheat and Indian corn; and to hay likewise. In these cases, comparatively little pork was raised and fatted, and the beef cattle were turned off and killed in a lean condition. These operations created actual deficiencies, which could not be supplied at once. Cattle, for stall-feeding, were never remembered to have been so scarce as they were the last season; and many farmers who had the hay and provender on hand, refused to buy cattle for stall-feeding, on the almost certain presumption, that when compelled to purchase at so dear a rate, no returns which they were likely to realize when their animals would be ready to go to market, would meet the expenses of stall-feeding on hay and grain at current prices.

Then again, the last year, owing to the universal drought, the potato crop, on which much dependence is always placed for feeding swine and cattle as well as the human family, was every where a short crop. These causes, however, are transient in their nature. Farmers are now everywhere going largely into the raising of neat stock and existing deficiencies will be soon supplied; and as to other crops we may at least hope for ample returns the coming season.

But there are other causes of the present high prices of agricultural produce more deeply seated, and of a more permanent character.

The population, by natural growth and by foreign accessions, increase among us in a rapid ratio. These are to be fed. The style of living generally, has, within five years, become much more luxurious than formerly, and the consumption of meats, of every kind, has

greatly increased. Where one dish satisfied us, two and three are now considered indispensable. This is certainly the case in cities.

Next, the immense increase of the class of consumers, and decrease of the class of producers. Look at the innumerable hordes of individuals employed on public works, rail-roads and canals, on buildings and improvements, in manufactures and trades, all of whom are withdrawn from the labors, and yet are to be supported by the products of agriculture. Observe too the infinite number of young persons from the country, who are employed in our cities in various trades, in shop keeping, and as house-servants. This class is daily increasing; and we cannot but regard with feelings that we hardly dare to express, the crowds of young men, who might establish themselves as independent freeholders in the country, who are willing to barter the pleasures and privileges of rural life, of open fields and manly employments, to become the mere sellers of tape and needles, ruffles, essences, and paste jewelry in our cities, or engage in the degrading services of cleaning brasses and washing dishes, with the noble privilege of living in basement-story kitchens.

But one great and prolific source, as we honestly believe, of high prices, deficient labor, the luxury, waste and servility which prevail among us, is in the multiplication of banks beyond the business wants of the community, the extension of paper money, and the abuses of the credit system. Our honest conviction is, that the enormous increase of bank capital, beyond all reasonable limits, is destined to prove to the country in its various influences, a source of immense evil. The calamities from which we have just escaped, are to be directly traced to this as their great origin, and as matters are now going on, we have only to look forward to another explosion, as disastrous as that from which we have so recently recovered—for come it must. Its arrival in the natural course of things, is as certain as the descent of water upon an inclined plane, or the passing of the sun over the meridian. The creation of immense amounts of purely artificial and fictitious capital, produces a dangerous delusion with individuals and on the public mind. If its effect were merely to increase the facilities and stimulate the powers of production, it would so far be well; but this it does not do excepting in a very partial degree, and in an indirect form. This money is loaned to what are called men of business; a class of men, who, as far as they are money brokers, the mere exchangers of commercial products without any increase of their value, or speculators in stocks and lands, add little or nothing to the wealth of the community. The increase in the nominal value of real estate, is of no advantage to the community, unless it is based upon some positive improvement or increased productiveness of the soil. If a piece of land is sold to-day at five dollars an acre, and next week it is valued at ten dollars an acre, without any change whatever in its condition, how is the community in any respect benefited, or its wealth increased? But on the other hand, the obtaining of land for agricultural purposes, for production, and the actual creation of wealth, is by this enhanced price, rendered more difficult to the man whose labor is his only capital, the man of all others in the community the most to be encouraged. Then again, the abundance of money itself lessens its value and operates to raise the scale of prices. The facilities of procuring credit and money induce recklessness; lead to all kinds of speculation; create a distaste for labor; encourage the most luxurious expenditures; relax the bonds of moral principle, and convert the community into a population of gamblers. It is the true

secret of the enormous frauds with which our community has been convulsed within the last two years, and of the prevalence of the gross and immoral principle, that a neglect to pay one's debts to a corporation, or a fraud upon a corporation, is a different matter from one committed upon an individual. In fine, it is the moving cause and prolific source of speculation,—speculation, a matter pregnant with evils and from which no more good has accrued or can ever accrue to the community than from any other form of lottery gambling. These are to a certain and considerable extent, the causes of the high prices of living; and under this system they must continue until we have another periodical explosion. There is no cure or preventive. There is not moral soundness enough in the community to afford any hope of amendment or of change, until another fit of *delirium tremens* brings us up, as the sailors say, "all standing;" rubs out old scores, and then leaves us to start again in a new course of unbridled profligacy, vulgarly called prosperity. H. C.

Improvement.

[FROM THE NEW-ENGLAND FARMER.]

Improvement! We are disposed to think that this is the best word in the language, because it signifies the best thing in this world. It combines most of hope. Wherever things are stationary, hope expires; but where there are progress and advancement, hope is continually fed and stimulated; and as we ascend, the prospect widens. It brings more happiness with it than any thing else in life. The human heart knows no sensation more pleasurable and more satisfying than the consciousness of advancement. To be growing better, and to perceive the capacity of growing better continually unfolding itself and becoming more and more enlarged, inspires a high sentiment of the dignity and value of our existence; calls out and urges to their utmost speed, all the faculties of our minds; and gratifies the best affections of our nature. It is in this matter, likewise, that man acquires a sentiment, if we may be allowed the expression, of the infinity of his nature. The brute creation soon reach the end of their line. The birds have built their nests in the same form, and sung the same song ever since the race was created. In the same species, invention, if it may be called invention, reaches to a certain point and then stops; and in this respect, unless in a case of disease or unnatural impotence, invention is the same in all of the same family, and no one goes beyond another. They gain no advantages from experience, and they learn nothing from each other. How different is the case with man; how infinitely does the human intellect transcend the brute instinct. To the mind of man, to its inventions, its conceptions, its desires, its attempts, its aspirings, what limit has been found or can be conceived? Even here there is an ocean of knowledge spread out before it, boundless, fathomless. But beyond this world, there is a universe for its exploration, and an eternity to labor in. These considerations proclaim the infinity of the human being.

Wherever this spirit of improvement is discoverable, and puts forth in any, even the most humble form, its beautiful manifestations, it imparts the highest pleasure to the benevolent heart. The improvement of the human mind, so that it may soar higher, know more, acquire faster, retain longer, is a delightful process in the experience

and the contemplation. The improvement of the character, the moral nature, so as to exalt the standard of duty, give to the individual a more complete self-possession, render vice odious, and attach us to duty and virtue as the business and purpose of life, extend the usefulness of man, and render him the benefactor and the ornament of the creation, this we all acknowledge to be the highest good and happiness of his being. The improvement of his outward condition, his animal subsistence, his personal accommodations, his physical condition, his external comforts, his sensible pleasures, so as to render his food more abundant, more palatable, more healthful, more nutricious, his repose more peaceful, his labor less toilsome, the earnings of his industry more secure; so as to render his residence more beautiful, more tasteful, more attractive, and to multiply the sources and means of innocent gratification—all this is adapted to impart a rich and unalloyed pleasure to a contemplative and benevolent mind. When these improvements go on rapidly, and their impulse quickens as they advance; when we see them, like the rising spring-tide upon our broken and indented shores, gradually widening themselves out, breaking over temporary impediments, pressing into every creek and opening, filling every ditch and cavity, and at length spreading themselves out in a broken and mirrored surface over wide plains, and leaving, wherever the waters come, rich deposits to quicken and supply the latent but active vegetation; there is a charm in the prospect, in the good attained, and the returns anticipated, which refreshes, delights, and elevates the mind—teaches the value of our being, and makes us thankful to God that we are alive. "I pity the man," says Tristram Shandy, "that can travel from Dan to Beersheba and cry that it is all a desert." Indeed he is to be pitied for his heartlessness, selfishness, and inhumanity.

We have been led into these reflections in looking at the condition of our own community, and in strolling through the highways and the byways, upon the hills and in the valleys, in the gardens and over the fields in the vicinity of Boston, within the last fortnight of this charming and delicious month of May. It would be thought out of place by the fastidious, if we went into any discussion of the intellectual and moral condition of our community in this journal, and therefore we abstain. Yet we cannot but think that the improvement of man's physical condition has a direct influence upon the improvement of his intellectual and moral nature. In proportion as the comforts and luxuries of life are diffused and equalized, they become less the objects of envy, covetousness, and plunder. Where fruit abounds it is seldom stolen. So, likewise, in proportion as man's outward condition is improved, as he attends to the cleanliness of his person, the neatness of his dress, the elegance and tastefulness of his residence, and multiplies about him objects of refined taste and beauty, his self-respect is strengthened, his value of character elevated, his sentiment of honor quickened. These are among the great securities of virtue and powerful excitements of virtuous ambition. The improved perceptions of outward beauty, the beauty of natural objects, are direct aids and quickeners of our moral perceptions, and refiners and improvers of our moral tastes.

But in respect to the external condition of things among us and around us, the actual advances and improvements made within the last thirty years, are absolutely amazing. Within that period, and within a circuit of twenty miles round the capital, thousands and thousands of acres which seemed too barren ever to be rendered pro-

ductive, or too rocky ever to admit the plough, or too wet ever to be redeemed, have been brought into a condition of fertility, and are covered with a luxuriant vegetation. Where here and there was an elegant mansion, belonging to some individual of princely wealth, whose privileged situation presented an insular aspect and seemed placed altogether beyond the reach of the many, there are now hundreds and hundreds of elegant cottages and villas, belonging honestly to individuals who earn their daily bread by their daily labor; blessed at the same time with sufficient liberality to adorn their residences with beautiful embellishments; and with improved taste to enjoy many of the most refined luxuries of rural life. Thirty years ago, the cultivation of fine fruit was limited to a few; refuse apples, fit hardly for cider; pucker-mouth pears, which set the children as well as the fathers' teeth on edge; field strawberries, with their stems and leaves and half formed fruit upon them; wild grapes, about of the hardness of green peas and flavor of crab-apples; currants, blackberries, and wild cherries, whose acid made your eyes sparkle with tears when you broke their skin, constituted some of the principal luxuries of the market. Now, green houses and conservatories and forcing beds in the country are getting to be an almost indispensable appendage to every handsome residence; and the richest fruits, peaches, nectarines, pears and grapes, which are capable of being reared in our climate, are spread about in the vicinity of the capital, and fast finding their way far into the interior in the richest profusion. Add to this the cultivation of flowers, which is extending itself with the most extraordinary profusion. Not many years since, a few wild roses, pinks, princess-feather, sweet-williams, lady's delight, tulips, lilacs and marigolds, constituted the whole parterre; and even these were looked upon as rare luxuries; and if the children at school could find a dandelion or lilac, or a white daisy to stick in their bonnet, it was deemed no common acquisition. Now, every where, certainly in this vicinity, the most common houses show the most beautiful green-house plants at their windows; their daphnes japonicas, geraniums and lilies; their front yards bloom through the season with a succession of the most splendid flowering shrubs, and their door-ways and piazzas are trellised with woodbine and monthly roses, and breathe the delicious odors of the sweetbriar and the honeysuckle.

All these things mark a progress in refinement and innocent luxury, in every respect auspicious to comfort, general improvement and humanity; and fill to overflowing the bosom, susceptible of grateful influences, with thankfulness to that Gracious Being, who has made this creation so beautiful, and given man so much to enjoy; and who, when he had finished the creation, and saw his glorious work blooming in vernal glory and splendor, pronounced it "all good."

Education of the Farmer.

[FROM THE GENESEE FARMER.]

Mr. Tucker,—Notwithstanding there is very much said and done on education, at the present, there still appears to be a very great defect in the education of the farmer. The son who is intended for the bar or the pulpit, having acquired what knowledge he can at our common schools, must spend several years in some of our preparatory

institutions, and then perhaps as many more in college, before he commences studying the profession which he is to follow, and to which he must apply himself for some length of time before he is permitted to practice it. But not so with him who is intended for the plough. He is permitted to spend only a few winters in some of our common schools, where, perhaps, he may acquire a knowledge of arithmetic, grammar and geography. Beyond this, but very few go, whilst the great majority stop short of even this. But why this difference? Why is the lawyer, the doctor, the minister, the manufacturer, and the speculator who lives on the earnings of others—why are all these to be educated, and the farmer left to pursue his business in ignorance? Is it because farmers are not capable of acquiring knowledge? I think not; for better natural abilities cannot be found than this class possess. But what is the cause of this difference then? Is it not the erroneous opinion which has been handed down from father to son, for centuries? For it has long been said, that the farmer needs but little education, that his business requires but little. But this is assertion without proof. The injurious effects of having the farming community left in ignorance, we plainly see. We see the science of agriculture entirely behind the age. Sections of country once fruitful, now barren. And farmers reaping but one half or two thirds the profit which they might, were their farms rightly managed.

But what may we expect to see when the farming community shall be educated as they ought to be? Will it be too much to expect to see the reverse of the picture just drawn? viz: the *science of agriculture*, at least, keeping pace with the other sciences, barren lands made prolific, and farmers reaping much greater harvests, with greater ease, than they now do?

There are different opinions as to the quantity and quality of education which the farmer ought to have, that he may pursue his business with pleasure and profit. For my part I would have every man who calls himself a farmer, thoroughly acquainted with both the theory and practice of laboring with his own hands; and as thoroughly acquainted with every science which is in any way connected with the science of agriculture.

CASSANDER.

Hume, May 12th, 1839.

Experiments on Manures, &c.

[FROM THE YANKEE FARMER.]

The Committee Report: That they consider the subject of the making and application of manures, one of the greatest importance to the agricultural interest. Manure and labor are to the farmer, what capital and credit are to the merchant. With them well applied, the one will add barn to barn, the other store-house to store-house, till there shall be no room to contain their several wealth; without them, they must soon suspend operations, and their farms and their ships pass into the hands of more skilful and industrious owners.

Many farmers think they cannot afford to purchase manure, and the price *does* seem disproportioned to the immediate profits; but no farmer will say that he cannot afford to make the most of what he has, and to apply it to the best advantage. Many take an honest pride in being able to say, I have raised so many bushels of corn, or

so many tons of hay; now to be able to say I have made five hundred loads of manure. is just as much a matter of boasting, for manure will make corn, and hay, and other valuable products, if it be only judiciously applied. Put in the seed and manure, and the grateful soil will make you a liberal return. It is held to be true by experienced farmers, that he who doubles the expense of labor and manure, will increase his profits and products in nearly a fourfold proportion. In other words, the man who spends half his time upon his farm, and skims over one hundred acres of land and gleans from it fifty bushels of corn and twenty tons of hay, if he should devote his whole energies to his farm and improve his means of making manure, might raise nearly two hundred bushels of corn and eighty tons of hay.

Some have in their natural situation and proximity to the sea-board, greater facilities for making and obtaining manure, but every substance of animal and vegetable matter can be mixed with the soil in such a manner as to increase the fertility of the earth; and even the different soils may be mingled so as to produce the same effect.

The quantity of manure the farmer uses is a pretty fair criterion by which to judge his character. In Plymouth county, where a premium is awarded to the man who makes the greatest number of loads, a most worthy and truly respectable farmer, the last year, reached the very enviable eminence of seven hundred and ninety-eight loads; the lowest competitor claimed for three hundred and fifty loads, and this must be allowed to be an improving character. William Clark, jr., of Northampton, in his statement to the Hampshire, Franklin, and Hampden Agricultural Society, represents that he keeps an average stock of eight swine, three horses, and eight oxen and cows; from this stock, with the skilful use of all his advantages, which are not superior to those of many of our farmers, he made from June 1837, to June 1838, nine hundred and twenty loads, an honorable monument to his intelligence and industry, which compensates in utility and solid value for what it may want in taste and splendor. Mr. Clark used for compost, three hundred loads of sods and soil, and two hundred and forty-seven loads of swamp muck. His yards were supplied with corn stalks and refuse hay during the winter, and brakes and weeds in the summer, and cleared out twice during the year. It might be supposed that manure so made could possess but little of the quickening and strengthening principles, but those who have visited his farm and seen his fields burdened with their heavy crops, are satisfied that Mr. Clark knows how to make manure and to apply it, and that his fields acknowledge their obligation and pay their due return. Mr. Clark, from such manure, has raised more than one thousand bushels of corn in a year.

The Committee award to Daniel Putman, of Danvers, for the satisfactory experiment and the full and explicit statement made by him, a premium of twenty dollars.

They recommend that Mr. Putnam's statement and the letter addressed by Joseph How, Esq., of Methuen, to the Committee be published.

For the Committee, DANIEL P. KING.

Topsfield, Dec. 25, 1833.

DANIEL PUTMAN'S STATEMENT.

To the Committee of the Essex Agricultural Society, on Experiments on Manure.

Gentlemen,—The following account of experiments in the use of unbleached *wood ashes* as manure, is submitted, that you may make any use of it which in your judgment will render it serviceable to the farmers of the county. In the latter part of August, 1837, I broke up about one acre of low land (too low and wet to till with ease,) which had become so much bound out that it yielded not more than fourteen or fifteen cwt. of hay, and that little was of poor quality. After ploughing, I rolled this land, and then dressed it with forty bushels of wood ashes, mixed with wash (mostly sand) from the road-side, making probably about one and a half cord; sowed half a peck of herds grass and three pecks red top seed; then harrowed thoroughly and rolled. The seed took well. In 1838 I obtained from this piece of land thirty-five or forty cwt. of very good hay, mostly herds grass.

In November, 1834, I broke up a field, dressing it with about four cords of manure to the acre, on a part turning it under the sod, and the remainder putting it on the furrow. In 1835, planted with corn, the crop large; in 1836, without moving the soil, sowed oats and hay seed. Obtained forty bushels of oats to the acre. The hay seed took well, but in the following winter was killed by ice forming and remaining long upon the field. In 1837, obtained not more than fifteen cwt. of clover to the acre. Thought I must take his field in hand again. In April, 1838, ploughed an acre and a half of it, rolled, dressed with forty bushels of wood ashes, unmixed with any other material, to the acre; sowed oats and hay seed. The oats had a fine growth and the hay seed came up well, but, (for I think it best to tell the *whole*) the rust which visited my neighbors oats was not kept out of my field by the ashes; I mowed for fodder before the crop had ripened; there was growth enough for forty bushels to the acre. The young grass, too, did not find the ashes a matchless sanative, for its sickness, (in the scorching weeks of August,) which a draught of pure water would have cured, proved mortal.

Shall I tell you too what virtue there is in bones? From Mr. Ward, of Roxbury, I obtained last spring twenty bushels ground bone (cost at Roxbury, thirty-five cents per bushel,) sold one bushel to a neighbor; mixed the remaining nineteen bushels with about one cord of soil taken from the side of the roads in the fields where the mixture was to be used. Some of it was used in ten or twelve days after it had been mixed, and some remained in heap five or six weeks. About 10th May, when planting corn where four cords of manure to the acre had, the previous autumn, been turned under the sod, and where I was putting four cords to the acre in the hill, I selected four rows through the centre of the piece, in which I put the bone mixture, at the rate of fifty bushels bone to the acre; no other manure in the hill. The corn here looked as well through the season as on the remainder of the piece, and ripened a little earlier. At the time of harvesting, 104 hills on bone yielded 184 lbs. of corn on the cob. The same number of hills in the adjacent rows on manure, yielded 198¾ lbs. That on the bone was the dryest at the time of weighing.

The first week in May, I planted a piece of corn, where I put three and a half cords of manure upon the furrow, and four cords in the hill, to the acre. Through the centre I left four rows until about the 10th of May, when I planted them with bone, as in the other piece.

Here, from sixty-six hills on bone, I obtained ninety pounds; from sixty-six on manure, ninety-six pounds. Here too, the corn on the bone ripened earlier, and of course weighed less.

May 21st, when planting potatoes, where four cords of manure to the acre had been turned under the sod the previous autumn, and where I was putting five cords to the acre in the hill, two rows were planted on bone, fifty bushels to the acre. This ground was furrowed only one way, and the hills on the bone happened to be put nearer to each other than those on the manure. When dug, *equal quantities of ground* were taken; of bone yielded 55 lbs.; the manure 52.

Between the 15th and 20th of May, I sowed sugar beet, in drills, three feet apart. In some used barn manure, six cords to the acre; in others muscle bed or sea-marl, five cords; in others bone, 50 bushels. Three drills of each kind, about three rods long, yielded as follows:—viz: From barn manure, 247 lbs.; muscle-bed, 355 lbs.; bone 337½.

At the same season I sowed carrots on barn manure, muscle-bed, and bone. Barn manure, six cords to the acre; muscle-bed, four: bone, fifty bushels. Some of the bone and the other manures were spread broad-cast, and a part of the bone was put in the drill, rows fourteen inches apart. Two rows of each kind, three rods long yielded as follows; barn manure, 75 lbs.; bone in drill, 105; bone spread, 82 lbs.; muscle-bed, 88½ lbs.

I sowed with ruta baga, June 1st, ten drills, three feet apart and fifteen rods long; five drills on barn manure, part of it fresh from the barn and cellar, and part partially decomposed, nine cords to the acre. The other five on bone, fifty bushels to the acre. Those on the bone were less eaten by the fly than the others, though the others were not very badly injured. A strip (seventeen feet in length) across the drills, where five had bone and five manure partially decomposed, yielded: bone 248 lbs.; manure, 228 lbs.

Another strip, sixteen and a half feet long, where there was bone and fresh manure, gave: bone 212 lbs.; manure 227 lbs.

About the 10th of June I sowed ruta baga on reclaimed meadow land; drills three feet apart; manure, nine cords to the acre; bone, fifty bushels. Soon after the plants came up, those on the barn manure were nearly all destroyed by the fly; it was necessary to sow a second time. Those on the bone were but very little injured. Four drills, two rods long, on bone, yielded 486½ lbs.; four on manure, 439 pounds.

DANIEL PUTMAN.

North Danvers, Dec. 5, 1838.

Old Field Cotton, &c.

[FROM THE SOUTH-CAROLINIAN.]

Mr. Editor,—It is a common practice with most of our planters to put their fresh or best lands in cotton, for that very obvious reason, that that staple requires good land to make it produce profitably, while by planting their poor or worn-out lands in corn, which may be easily manured, they may cause it to produce in a proportionate degree. It is not my purpose to condemn this system, but rather to suggest a mode that in some instances may supersede it, and be of equal or greater advantage to the farmer, at least so far as to reserve more of his good land for corn. Travelling some years ago through the middle part of Georgia, I had occasion to stop a few days at the house of a thriving and hospitable planter, residing on the Ogeechee river. Du-

ring my stay, he took occasion to show me his plantation, which consisted of pine land, lying very well, and a small portion of hammock on the river. In many of his fields, not a tree, and very few stumps even, were to be seen. But the cotton was growing very luxuriantly on one of them, of pine land. I of course concluded that it had been manured, and that well, though at a loss to conjecture the means he had used to manure so large a space for cotton. Judge my surprise, when he informed me he had not put a particle of manure on it for many years—not since he commenced planting it in cotton. He then stated that he had pursued the following system in planting cotton upon his old lands: He had previously listed his field for cotton during the winter, whenever opportunities offered, by throwing three furrows together—the rows being laid off three or three feet and a half apart. The first year, of course, he opened and planted his seed in the centre of the ridge, and tended the crop accordingly; which, he observed to me, was a very poor one; the stalks not growing, generally, more than "half-leg high," as he expressed it, or about twelve or fourteen inches; and the best not more than knee high. The next spring, when ready to plant again, instead of listing his ground in the "step," or between the rows, as is usual, where land is successively planted in the same kind of produce, he merely ran a furrow on the old ridge, along side of the former row of cotton, after beating down the old stalks—and without tearing up any more of them than can be avoided. The experiment, in due season began to promise very fair. The cotton all over the field that year averaged knee high, or more. He persued the same plan the next year, running perhaps the furrow on the side opposite to the one where he had run it the year provious, but on the same ridge. The result was an increase in the growth of the cotton plant, as well as in the product—and he continued the same process each succeeding year, and when I saw the field, which was in the latter part of the summer, the stalks were nearly three feet high, and very well formed. It was perhaps the fifth or sixth year he had been planting in that manner.

I have never had an opportunity of testing, myself, the virtue of this system, but doubt not that it is a very good one. It is evident that there is much matter in the roots of the cotton stalks to produce manure—and it may be that the soil of the bed being unexposed to the sun, may improve, and retain nutriment much longer. I have merely made this suggestion with the hope that it may be improved, as there are many farmers who plant very poor and old lands in cotton, without manure, and a trial of it can be of no injury. The labor is nothing more, and if any thing less, as it saves at least half the ploughing, necessary before planting. It may be proper to add, that the greatest and I may say the only inconvenience attending the cultivation of a crop in this manner, is the thinning of it out—the stems of the old stalks being in the way of the hoe; but with a little more than common care, this may be obviated.

I will state as a corroborating fact, in support of this system, and an experiment which suggested itself to me, after hearing what I have stated. I planted in *corn*, an old field, which had lain out many years. It produced but a very ordinary crop, though well tended, and experiencing good seasons. The following year, when ready to plant the same field, I run a furrow through the same hills, without even listing, and dropped the corn in the old hills. I gathered that year upwards of one third more from the same field. The field was planted four feet square, one stalk in each hill. ARATOR.

Making and Salting of Butter.

[From Chambers' Edinburgh Journal.]

The following notes on this subject are by an individual (a female) who has been personally engaged in the preparation of butter for fifty years.

Some time ago I observed in the Journal a comparison between Dutch and English butter. Could the particulars of the Dutch method be obtained, it would be a very desirable acquisition; but I apprehend the superiority of their butter is chiefly owing to the pasture and an unremitting attention to the duties of the dairy. In our own country the pasture affects in a high degree the quality of the butter, old pasture produces much richer butter than new; and on some hilly grounds where wild flowers and certain kinds of grass abound, the flavor is much finer than on low grounds, where the pasture is more luxuriant.

In the want of better information regarding this very necessary article of domestic comfort, I am induced to send you a few remarks, which may perhaps induce others who are better informed to do the same, so that the most approved methods of curing butter may be made known throughout the length and breadth of the land.

As a preliminary, I must beg the indulgence of being very particular, for the whole process is made up of small things, the neglect of one of which might affect the whole. I also wish it to be understood that my observations are chiefly adapted for the use of small establishments, where from three to six cows are kept. It is inferred that every thing in the dairy is conducted with the most strict regard to cleanliness. It ought to be a cool, dry, well aired place, free from all damp and bad smells. It is a great mistake to suppose that the art of making good butter consists merely in having it properly churned, thoroughly washed, and sufficiently salted. All this may be most pointedly done, and yet the butter turn out very bad. The main thing, and it must never be lost sight of, is to keep the milk in all its stages from contracting the least degree of taint. By taint I do not mean sourness. Sourness will not injure the butter; on the contrary, it greatly facilitates churning; and to obtain this in winter when cream is slow to sour, it is necessary to place it for twenty-four hours before churning, within the influence of a fire, and to stir it thoroughly two or three times during this period.

Cream ought never to remain on milk above thirty-six hours. This I consider to be a very important point, for if, by any omission, cream be suffered to remain for a longer time on milk, it is sure to contract an old bitter taint; and it would be more true economy to pour such cream into the pig's trough than to introduce it into the churn, as it will spoil the whole. A properly leaded stone jar is better than a wooden vessel for keeping cream, because wood is more apt than stone ware to get mouldy; a slight mould soon communicates itself to the cream, and of course to the butter.

A wooden rod must be continually kept in the jar, and every time cream is added, the contents must be stirred from top to bottom with the rod. This is very essential, for if neglected the cream first put in will gradually rise to the top, and so get tainted. Cream ought never to be kept above five days; but four is still safer for butter that is to be salted.

If the atmosphere at the time of churning be above fifty-four degrees, one quart of the coldest spring water to every three gallons of cream, put into the churn at commencing, will be a great advantage, and will injure neither butter nor milk. If there be the slightest cause for suspecting that the butter has suffered from hasty churning in warm weather, it ought to be salted for present use, and not put into the kit with keeping butter.

Butter on being taken out of the churn, ought to be instantly washed in spring water until the water come off colorless. After this, the sooner it is salted the better. In salting, use the best English salt, such as is used in the curing of herrings. To three parts of salt, add one part of loaf sugar, both finely pounded, and perfectly well mixed. One ounce of this to sixteen ounces of butter is the proper quantity. Let it be thoroughly incorporated with the butter. In cleaning and salting butter, a stout creaming dish is preferable to the hands.

Kits made of wood are much superior to stone ware in keeping of butter. The top of the kit ought to be about one-fourth narrower than the bottom, and the wood nearly one inch in thickness. A thin wooded kit is not so favorable for preserving butter.

In the process of salting, a little salt and water ought to cover the butter from the first, and a piece of thin linen should also be spread over it. The sides of the kit must be daily wetted with thin salt and water, by which mould is prevented from forming on the empty part of the kit during the time of filling. The kit ought to be filled within one inch of the top, and kept constantly covered by linen, and a pickle of salt and water. Butter is apt to rise above the pickle. This is easily prevented by turning over the butter a dinner plate. By placing a weight on the lid, the plate will be kept down. The kits must be kept on a cool, airy shelf of the dairy, not on the floor, and occasionally moved a little round. Butter for keeping, may with safety be salted during all the time the cows are on pasture. It is a most useful thing to have a slate in the dairy, whereon to note down the date and produce of churning; also what is salted or otherwise; and these notes to be set down occasionally in a book. A jar of ready made pickle, just strong enough to move an egg, but not so strong as to cause it to swim to the top, ought always to be kept in the dairy. Have also at hand a can of prepared salt and sugar, to be kept in a dry place, as the dairy will be too damp. The kits ought to be all numbered, and those first salted should be first used.

I have still to beg your indulgence for a few thoughts suggested by the above observations. In this enlightened age, when each class of the community is vieing with the rest in improving the commodity which comes under their immediate care, it is surprising that public attention has been so little turned to the improvement of the mode of salting buiter. The same complaints from the same cause are constantly to be heard, and there the matter rests, and so it will rest, unless general attention be directed to it, and a decided effort be made. Nothing is wanting to remove this grievance but a slight attention. There is no additional toil—no additional expense. What a pity then it is, that those to whose care the preparing of this article is entrusted, cannot bethink themselves to bestow these slight attentions. They should take into consideration the comfort of thousands of decent householders, who are both able and willing to pay for a wholesome article, but who have no alternative, but either to use the butter that is offered for sale, or to want it altogether. There is another consideration which ought to have its own weight, namely, the honor of

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their country—and none however humble, should think themselves too insignificant to contribute this. It is the many that make a whole; and if we always throw our influence on the right side, we have the satisfaction at least of having done what we can to create the happiness of our fellow creatures.

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We approve of the above mode of making butter. An idea has prevailed to some extent that it was injurious to wash butter after churning, and it is contended that the goodness is thus washed out. But we are satisfied by experience that washing in water assists to expel the buttermilk and prepare the butter for the tub. The hand should never touch the butter—provided the dairy woman can cleanse her hands well without it—for any particle of butter that is melted by any means, serves to injure the mass. Small wooden spades should invariably be used for working over the butter.—*Boston Cultivator.*

Improvement.

[FROM THE NEW-ENGLAND FARMER.]

In our last paper we said something of improvement—agricultural improvement. We design to add a few remarks. The subject should be kept constantly before the mind. No farmer ought to be satisfied with merely "getting along." There is another cant phrase, which we adopt in this case, which will express a second rule and a principal rule of duty; that is, he should "go ahead." It is not enough for him to get from his place a mere subsistence; but he should make that place continually better. He should be continually seeking to render his farm more productive, more convenient, more easy to be cultivated, and in every respect more valuable. We would have him pay some attention to appearances. Almost every one thinks it necessary to take great pains to please the taste. Why should not as much pains be taken to please the eye? We are of opinion that the pleasures of the eye are of a much higher class than those of the taste. The pleasures of the taste cannot be cultivated greatly without danger to the morals. They are in their nature exclusively selfish, and create a disposition fastidious and constantly growing more difficult to be pleased. It is not so with the pleasures of the eye. These are open to all. Here there is no monopoly, and much of our enjoyment arises from the fact that these pleasures though in our possession, are enjoyed equally by others without detracting from any of their advantages to ourselves.

An attention to appearances, neat arrangements, the removal from our premises of every thing that is offensive, the addition of various ornaments and embellishments, all tends to strengthen our attachments to home, our domestic affections, and to increase our self-respect, and in this way directly contributes to refinement of manners and to good morals.

Let improvements then go on. In the first place render your farm as productive as you can. Secondly, render it as convenient as you can. Thirdly, render it as neat and beautiful as you can.

It would seem altogether probable that interest would induce every farmer to render his farm as productive as possible. Yet this is very far from being the case. Of course we should not advise a farmer to cultivate that which will never compensate him for his labor and

expenditures. But where the production would afford an ample equivalent, we regret to be compelled to express our conviction that not one farm in two hundred is rendered as productive as it might be, and fully pay for the labor and expense, which it would require to make it so. How many farms in the State, consisting of one hundred acres have twenty-five under cultivation. Most of them have not half that amount. How many farmers in the State produce annually a thousand bushels of corn? As far as our observation goes, we do not believe there is one in Essex, Middlesex, Worcester, or any of the South-western counties. Possibly there may be two or three in the county of Berkshire. In Franklin county, in Hampshire and Hampden there may be half a dozen, all included. But there are in the State hundreds and hundreds of farms on which this might be done to the greatest advantage. In the wheat bill of the last year, a premium of one hundred dollars was offered to every farmer who should produce four hundred bushels of wheat. The premium was not claimed. The season it is true, was unfavorable, but had it been ever so favorable, we have heard of only two farmers in the State, who by any possibility could have obtained it; who had sowed any thing like the quantity of land that would have produced this amount, had the yield been even at sixty bushels per acre.

How many farmers in the State produce annually two thousand bushels of potatoes? We do not believe there are twenty. In this matter we may be in error, yet we come to this conclusion from no limited observation. Certainly there are very few farmers possessed of one hundred or even fifty acres of land who might not cultivate to advantage their six or eight acres of potatoes. Few crops at three hundred bushels to an acre, pay better than they do. The cultivation of them, however, is in many parts of the country very poor; and the average yield perhaps does not exceed one hundred and fifty bushels.

How many farmers in the State, with their hundred acres, produce two or three hundred bushels of other vegetables for their stock; of carrots, of ruta baga, of beets, of parsnips? They must be very few. Here and there may be one, who provokes the ridicule of his neighbors by his singularity, or alarms them by his enterprise.

If the farmers will look next at the condition of their farms, and remark how many acres lie absolutely waste, and how many not half improved; how many saturated and spoiled by water which might be drained; how many in pasture, which might be brought under cultivation; how many in wood which might be cleared; how many laying open, which might be enclosed; it is not difficult to see how far short of what it might be, production falls.

Here the agricultural improvement should begin—in constant, intelligent, skilful, persevering attempts to render the soil more productive; to get more out of the earth; to press her to her utmost capacity. We have not even approached that point. We are very far in the rear of it. As we increase her products, the more ample our means are rendered of farther increase. Under judicious husbandry, production increases the power of production. The more we get the more we can get, and the more means we have of keeping up and increasing the fertility of the soil. How honestly such wealth is gained, every one must feel. The saying of the shrewd Swift is often quoted; that "the man who causes two blades of grass to grow where but one grew before, is to be esteemed a public benefactor." This is a small

increase, and we hope no farmer whom we address will ever be satisfied without making the increase at least ten fold.

We have much more to say on this subject, but at present we forbear. H. C.

Culture of the Grape Vine.

[FROM THE PRACTICAL FARMER.]

We introduce the subject of the culture of the grape vine, with the following remarks of Mr. Goodsell.

It is now well established by experiments that our climate is well calculated for the cultivation of the finest of the American species of grapes, and well adapted to produce strong growths of most of the finer varieties of European vines, with corresponding crops of fruit so long as they can be kept free from that parasitic plant, generally though improperly called mildew.

That the American grapes are capable of making a wine equally as pleasant as those in common use in France and Germany, we verily believe; but since those vines are little known in this country, and as our tastes and opinions are made up upon Madeira wines, it is impossible to say how long a prejudice will exist, as at present, in favor of that as the only perfect wine, and the only wine that it is to imitate. So long as that prejudice does exist, so long we shall either be disappointed in producing the desired article, or if we produce it, we shall do it to the injury of the country.

It will be of little use for our Temperance Societies to make exertions to banish brandy from our tables, if Madeira wine is to be used as a substitute; or to prevent the use of pure alcohol and water, if we use the same quantity, which only differs in having vegetable extract in it.

The French and German wines are light, and are used to prevent thirst rather than promote intoxication; and as most of them are rather astringent, they act as tonics upon the stomach rather than stimulants of the brain.

Grapes are not only used for making wine, but are generally preferred to all other kinds of fruit for the table, and there is no good reason why our tables are not supplied with them eight months in a year, without incurring any very material expense, as half a dozen vines would be sufficient for that purpose.

Soil and Situation.—Many appearances indicate that the vine is indifferent to the nature of the soil in which it grows, as it is found to live in almost any soil; still these appearances are deceitful, for the vine like all other families of the vegetable creation, seeks a soil and situation congenial to it. It is under southern and eastern aspects, and in soils light and warm, and of a medium quality as to strength, that the vine attains that degree of perfection of which it is susceptible. It is the last mentioned circumstance that directs us in the choice and application of manures, and which forbids those of a heating quality, or of any quality in large quantities. The fresh mould of old pastures, the scrapings of streets, and compost composed of stable litter, the leaves of trees, weeds in a green state, and animal remains of all kinds, (as hair, skins, bones, feathers, &c., thoroughly

rotted,) and applied in moderate portions every second year, forms the most approved practice on this head.

But that much may be done in the cultivation of the vine independent of the soil, is proved from the fact, that the best grapes which are brought to the market of Paris, are produced at a place (Thomery, near Fontainbleau) which in soil and situation is thought to be naturally altogether unfavorable to their culture. The soil is clayey, cold, hard to cultivate, in many parts steril, having a Northern and Eastern exposure. Yet the grapes from this place, the Chasselas of Fontainbleau, are the most celebrated of any that come to Paris.

Diseases of Horses.

[FROM THE FRANKLIN FARMER.]

It is not often that cures for diseases of domestic animals receive the attention of readers. The following is from one of the most experienced and one of the very best men in this or any other State, and we recommend it to attention.

We have experienced and repeatedly witnessed the infallible effect of white lead ground in linseed oil, as a remedy for burns and scalds.

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Lexington, Ky., 1839.

To the Editor of the Franklin Farmer:

SIR:—I was led to send you the following paragraphs for insertion in your paper, by reading a few days ago, some passages of a book on farriery. I reflected on the facility with which a number of people might be induced into error by a belief that whatever is printed must be right, and having formerly made a particular study of the diseases of horses, and even followed that branch of business with some success, I thought you would insert a few hints on the subject in some of your useful numbers; they may perhaps help to save the life of some valuabte animal with little trouble to its owner.

The Bots.—Among the worms that lodge in the intestines of all animals the bots are found, particularly in the stomach of the horse, and are produced by a kind of nit, the egg of a fly; it may be observed in abundance upon the legs and shoulders of a horse, and is easily seen by its yellow color, and might easily be curried off in time. It is at all times a bad practice to curry a horse in the stable; worse in time of those nits, mixing with the food in cleaning the curry combs on the trough, instead of which either from irritation of the skin, or from instinct, the horse bites or licks his hairs, and swallows the greatest part of those knits which soon hatch in his stomach, grow into bots, and fastening upon the inner coat often perforate the stomach through. The bots once formed in larger or smaller quantities, subject the animal to pains, the symptoms of which differ very little from those of the cholic. He looks at his side, lies down, rolls in agony from side to side, and soon dies in most cases, if a prompt remedy is not applied. The most efficacious that I have found is very simple, and easily found every where. Take two ounces of soot, as clean as you can get it, that is free from either gravel, lime or plaster, if you sweep it out of the chimney, mix it well in a quart of new milk, if possible, but at least milk-warm, and drench the horse with it through a horn: this drench will immediately relieve him (if it is the bots,) and he must be fed as soon as possible: the bots are detached from the stomach on which they were preying, and mixing with the food

will pass with it, and twenty-four hours after will be found in the voidings of the horse, either ground by the natural process of digestion or entire, and even alive. This simple remedy is also good for all other intestinal worms, although its effects are not so immediate, having a length of intestines to traverse. A horse is more liable to suffer from the bots when he is hungry, for in that case, they fasten on the coat of the empty stomach for want of any other food. If, however, the horse has been over-fed or surfeited with clover, green or dry, ill-cured hay, &c., the structure of the stomach is not made to throw up like man; he only does it when his stomach bursts, and dies instantly; sometimes the main artery bursts, and the consequence is the same. I opened a horse in such a case.

The Surfeit is likewise manifested by cholics, the cause of which is generally easily known; in that case the introduction of any thing more in the stomach is a pernicious practice, and as a horse cannot vomit, emetics would be very useless, to say the least of it. Injections of flaxseed boiled in water, and strained, or mullen water are efficacious. A glister pipe for a horse may be made of strong tin, and must hold a gallon; the pipe itself should be long and crooked, for evident reasons.

The Strangury is another very dangerous and painful disease of horses. The symptoms of this disease are the stretching of his body, and the violent efforts of the horse to accomplish the purposes of nature. Injections must be resorted to in order to distend the neck of the bladder and reduce the inflammation; diluting drinks, such as bran and water must be given, and his food be very light for some days until he is cured; bran, rye, meal, chops being the most proper articles of his food.

I will mention only two more diseases, easy to cure in the beginning, but very obstinate if they are suffered to go on unattended to; such are the *Poll-Evil* and the *Fistula;* both originate often in brutal blows on the head, and saddles or collars hurting the shoulders. Sometimes the Poll-Evil proceeds from too low a stable door. The parts thus affected must often be rubbed with salt and water only, as soon as the swelling is discovered, until it is perfectly reduced, which will happen in a short time, if the horse is not used. As to accidental breaks and breakings of the skin, they must be washed with soap suds of the juice of Jamestown weeds, (*datura stramonium;*) care being taken that nothing rubs the afflicted part, in which case it would be longer to cure.

Cure for Scalds and Burns.—A little girl of one of my friends being severely burnt lately, I gave him a remedy which, doubting, if it was generally known, I send you, having experienced its efficacy for myself and others. Take white lead, ground with flaxseed oil, as if for painting, without any turpentine, apply as quick as possible upon the burnt part; the mixture must be rather thick. Bandage or cover it to prevent rubbing off, the place will cure without any other application, and will leave no mark: the paint and dressings will fall off themselves when the cure is completed.

I am, sir, with esteem, your's,

W. MENTELLE, Sen.

N. B.—Before giving any thing to horses suspected to be diseased by bots or cholic, the probable cause of the sickness should be diligently sought from those who had the feeding and care of them.

W. M.

Education of Farmers.

[FROM THE GENESEE FARMER.]

Mr. Tucker,—I have, for several years, been fully convinced that neither lawyers, nor physicians, nor clergymen, nor professors of colleges, nor any other class of the community, have so many inducements or so many facilities for becoming really intelligent and scientific men, as farmers. No class of men have occasion for so constant or so extensive an application of science in their profession. Botany, mineralogy, geology, chemistry, natural philosophy, entomology, and the natural history of animals generally, are brought into use, directly or indirectly, by every farmer, almost every day he is engaged in his business.

If it should be asked what the farmer has to do with botany, the question may be answered by asking another, viz:—If the farmer has nothing to do with botany, or a knowledge of vegetables, who has? Does not the whole success of his business depend upon a knowledge of the various plants he cultivates, together with many in the way of cultivation?

Some may ask, how can geology be used by the farmer? The first object of geology is to give a knowledge of the component parts and structure of the earth, and of course the nature of soils. The question might be answered by a volume of facts: I will give but one. In New Jersey there are extensive tracts of lands now worth from fifty to a hundred dollars an acre, which, a few years ago, were not worth fencing; the application of marl has effected the change. Except for a knowledge of that, the land would have continued as worthless as at first.

What use has the farmer for chemistry? A great part of his business is a series of chemical experiments. Not a furrow can be turned, no manure can be applied, not a fence made, nor a root or a plant preserved or prepared for food without an application of chemical science.

But what has the farmer to do with natural philosophy? Every plough, harrow, rake, hoe, scythe, axe, cart, wagon, yoke or harness, not constructed according to the principles of natural philosophy, imposes unnecessary labor on man or beast.

And can entomology, or a knowledge of insects, be applied to farming? In the year 1827, a single species of insect, the wheat fly, cost one State, Pennsylvania, several millions of dollars. The canker worm, the grass-hopper, the cut worm, and numerous other insects, frequently present themselves, though small, yet powerful enemies to the farmer, who of course has occasion to understand their weakness, while he has such fatal proof of their power.

The horse, the ox, the sheep, the swine, and other domestic animals, the farmer has occasion to understand, both in health and disease.

Some parts of the mathematics the farmer has daily occasion to use in his business. Practical geometry, in one form or another, comes in almost constant use in farming operations. A portion of arithmetic is indispensable:

But some may say, perhaps, that however important and necessary an extensive knowledge of science may be to the farmer, he has not the facilities for acquiring it? Is that possible? Is not the daily use of any science or art, the best of all possible modes of obtaining a

familiar and thorough knowledge of it? It may be questioned, even now, whether farmers do not possess a greater amount of really useful knowledge, than any other class of the community. They certainly have not so many technicalities of science. They have not so many Latin and Greek terms to apply to things or the laws which govern them, as those devoted exclusively to scientific pursuits. But do they not know as much of the things themselves? Cannot almost any farmer give the best scientific botanist much useful information concerning plants?

The graduate of a college may know that what we call oak, the Romans called *quercus*, and that the Grecians called it *drus*, and still be unable to distinguish oak from chesnut. The plain unpretending farmer, although ignorant of the terms applied by the Greeks and Romans, to these useful products of the forest, could readily inform the scholar, whether a tree or a stick of timber was oak or chesnut, and whether it was white, red, grey, black, Spanish or some other oak. Also what were its properties and uses. Of course, the difference between the scholar and the farmer is, that the former has three terms but not an idea; while the latter has but one term and a great number of ideas connected with it. The question then comes—why is the man of useful information and sound learning, the ignorant farmer, or the learned scholar? However it may be with others, no farmer will hesitate for an answer. It may be added that this is not merely a supposable case, but one which actually exists in thousands of instances in our country.

The first steps for rendering farmers the most truly and generally enlightened, as they are much the most numerous class of the community, is to have them understand and appreciate the knowledge they already possess; the second is for them to improve that knowledge, and the natural advantages they enjoy for acquiring more.

And what are these advantages? First—a farm is a far superior place for acquiring really useful knowledge, and acquiring it thoroughly, than any hall of science which is or can be constructed by the hands of men. It is a "Cabinet of Nature," more richly furnished with specimens, and a laboratory where chemical and other philosophical experiments are going on upon a larger scale, than can be found in any high school, academy or college.

Second—the business of the farmer, if he guides it with the hand of science, and by careful observation, furnishes means of instruction which can be found in no other profession. The laws of animal and vegetable physiology, of chemical science, of mechanical philosophy, hydrostatics, and of natural science generally, can be intimately and daily developed by experiments which furnish his bread and his success in business, not only without cost, but with great satisfaction and pecuniary profit.

Third—the winter evenings of farmers, if properly occupied by reading, experimenting, and comparing the statements of books with their own experiments and observations, would furnish ample time and opportunity for storing the mind with principles, or the general laws of science, to direct their summer operations. These evenings are spent far more profitably, if aided by "social lyceums," or weekly or semi-weekly meetings of some ten or a dozen, or even of five or six neighboring farmers, for the purpose of conversation, of experimenting and reading on subjects previously selected for the purpose.

Fourth—as a school of morals, the farmer certainly has the best. The best proof of this is its results. Whether colleges, academies,

and high schools, may or may not wih propriety be considered schools of morals, industry, health, and of useful knowledge, farms are certainly schools peculiarly favorable for the whole.

I have here given a few brief hints on a great and interesting subject connected with the highest prosperity and the liberties of our country. On some future occasion, if time and circumstances should permit, I may enlarge upon the subject, and shall remain, in the mean time, with high esteem, your friend,

J. HOLBROOK.

Manures.

[FROM THE NEW-ENGLAND FARMER.]

Mr. Coleman,—Sir: I send you the following as the substance of my remarks at the last agricultural meeting.

After alluding to the statements we had received on former evenings of the great advantage of ditching and draining wet land; the improvements in the mode of exterminating the wild grasses, preparatory to planting such as we wish to cultivate, we came naturally to the inquiry, what nourishment do the cultivated plants require?

Plants are organized living bodies; they must have a home in the soil; they must have water and air; but beyond all this, if they could speak, we should hear the cry from many a field, "give us *food*." Manure is far from being a simple substance. The most obvious division of its parts is into vegetable, animal, and saline.

The vegetable part of manure furnishes the substantial pabulum, or food for the plant; and also tends very much to preserve a due proportion of moisture in the soil. The saline parts act mostly as stimulants, and must be used in compost, or on soils containing vegetable matter. The severe drought of the last summer has demonstrated the value of vegetable compost in retaining moisture in the soil.

Squashes, sugar beets, and potatoes planted on sandy soil, manured with compost made of peat and lime, moistened with the wash from the barn-yard, survived the drought and yielded a respectable crop; while others planted on similar soil, manured with the best stable manure, died.

Lime neutralizes the *ulmic acid* which renders decayed vegetable matter partially or wholly unfit for manure, and forms a new compound—*ulmate of lime*. By the addition of one-sixth of animal manure, get a new product, the *ulmate of ammonia*. These are, probably, the most valuable salts in any manure.

The analysis which have been made, indicate an almost universal deficiency of vegetable matter in our soil. Science teaches us that by the aid of lime, or any of the alkalis sufficient to neutralize the ulmic acid, we may use with perfect success in supplying this deficiency, peat, swamp mud, muck, &c., which, if used alone, would be found to be inert or injurious.

The compost, sweetened by lime from the comparatively insoluble nature of the salts it contains, must be more durable than a similar compost where wood ashes are used instead of lime, because some of the salts produced by neutralizing ulmic acid with potashes are very soluble in water, and although beyond all question good, may, and

probably will, for this very reason, be found by experiment to be too soon exhausted to be used on a large scale with economy.

All salts that dissolve readily in water, will soon escape from the soil; a few of them are volatile and may rise in vapor; but the major part of them, more particularly in compost manure, are not volatile, but are more or less soluble in water. Just so far as they are dissolved by water they are capable of being carried down by the rains, until they get beyond the reach of the rootlets of the plants.

Every farmer needs a laboratory appropriated to the manufacture of manure for his own uses. It should be covered from the weather, and be near the barn yard. A cistern large enough to contain all the wash of the yard should be near at hand. There is hardly an article of waste about the barn or house which does not properly belong to the compost heap. The contents of the wash-tub, refuse brine, the remains of all vegetable or animal matter, too poor to be otherwise used, should be used: night soil is very valuable. In short, every thing sweet or sour, fat or alkaline—the soot from the chimney, even fine charcoal, if to be used on a white soil, may be added with advantage.

The raw material may be put down in layers, as for example, a layer of peat, then lime, or whatever alkali is used put upon it, then a layer of animal manure next, and so on. (It is more convenient to moisten the lime before using it, just enough to make it fall to a fine powder.

Those who have had experience, inform us that the ingredients must be thrown on lightly, and not trodden down. The pile being completed, the fermentation might be regulated by pumping more or less of the liquid manure from the cistern on to it. All the salts contained in the wash of the yard will combine with the mass, acting upon it according to the laws of chemical affinity, and in turn being acted upon in like manner.

The loss of manure by evaporation, I apprehend, is occasioned by manure being exposed while fermentation is going on; then the gasses are let loose and readily fly off, but by having present four or five times its quantity of the decayed vegetable matter, (so abundant in our peat bogs,) we have an absorbent, which most effectually prevents the escape of ammonia. This is the *volatile* salt, and if we cannot get vegetable matter, we should take the soil for an absorbent.

We need more light on this subject. It is an immensely important practical question, which must be tested by experience, which of the alkalies or alkaline earths shall we use to make the best, most durable, and profitable compost. Also, how much by weight or measure of lime, (weighed or measured before slaking,) is necessary to neutralize a cord of peat? How much caustic or fresh made wood ashes? How much leached ashes? How much potashes? How much soda are required? But we know enough to begin. Let us attend to this branch of manufacture! Every man can, at a moderate expense, build his own laboratory. The raw materials can, in most cases, be obtained at small expense.

Our necessities call loudly for the establishment of these domestic manufactories. An adequate supply of manure cannot now be purchased at any price. By these establishments we can improve the quality and diminish the price of the article, and increase the quantity at least five hundred per cent. the first year. N. C. K.

Rearing Silk Worms in South-Carolina.

[From the Journal of the American Siik Society.]

Camden, (S. C.) June 6, 1838.

Mr. Editor,—Sir: I saved last year sixteen pair of the mammoth white werm, (all I had of that kind,) and from their eggs, I have this year produced twenty-seven pounds of cocoons, weighing thirteen pounds (avoirdupois,) to the bushel, struck measure, and by count averaging two hundred and eighty cocoons to the pound—they were weighed three or four days before they pierced, had it been earlier their weight would have been greater. A selected pound numbered two hundred and seventy-four—there was but little difference in the lot, the average weight of pure cocoon was three grains, (apothecary's.) Ten of the cocoons, large but not particularly selected, measured thirteen and a half inches long, and eight and a half broad, and weighed soon after spinning, three hundred and thirty grains, (apothecary's.)

One fourth of the worms were fed partly with multicaulis, and whether it was from this I cannot say, but the half bushel weighed a quarter of a pound heavier than the others, which were fed wholly in the native white mulberry. During the two last ages of the worms the leaves were fed to them on the twig, which remained on the tables, and among those twigs they formed their cocoons—some spun in oak bushes, these I thought made more floss than the others. Not more than a dozen worms changed without spinning; last year I lost many more in proportion to my stock, a cold, rainy spell coming on about the time of rising.

Next year I shall make an experiment as to the profit of producing silk—I shall fit up an out-house as a cocoonery, and raise as many worms as I can provide food for. This year, as I expect there will be a great demand for eggs, I have suffered all the moths to pierce, and shall have, in all probability, twenty-five ounces of eggs to dispose of. Our multicaulis has come up badly, owing to carelessness in planting and a dry spell, withering many after vegetation had commenced.

I wish you would publish the best manner of working the pierced cocoons and the floss silk. I have had some spun after the manner of flax, but it is not an even thread.

Respectfully your's, T. LEE.

PART III.

MISCELLANEOUS INTELLIGENCE.

Beaufort Agricultural Society.—At the Anniversary Meeting of the Agricultural Society of Beaufort District, held 15th June, 1839, the following Resolutions were unanimously passed:

1st. Resolved, That we will not relax in our efforts to procure State legislation in favor of the great, but neglected interests of Agriculture.

2d. That we respond to the opinion now daily gaining ground, that an Agricultural Convention is requisite to decide upon the most effectual plan for promoting the interest of Agriculture, and concentrating public opinion upon that which may be preferred.

3d. That we will appoint Delegates to an Agricultural Convention to be held in Charleston on the 3d Monday in November next, and if it shall seem expedient, on the same day of every succeeding year.

These Resolutions were proposed by Wm. Elliott, Esq., President of the Society, and seconded by the Hon. R. B. Rhett, and after full discussion, adopted without a dissenting voice.

It was urged, in the discussion, that there were good grounds for objecting to each of the propositions for an Agricultural Convention heretofore brought before the public—that the proposal to convene the Convention at Columbia, on the week prior to the meeting of the Legislature, would, most likely, prevent members of that body from attending; as it would add another week to the period of their necessary seperation from their families—that their meeting during the session, would be unfavorable to a proper deliberation, and too late to effect all the purposes contemplated by those who proposed it—that an Agricultural Convention held during the session, had heretofore been tried without any profitable result.

It was therefore decided, that in point of time, the 3d Monday in November would be most eligible, as it would allow the results of the deliberation of the Convention to be brought before the Legislature—and that so far as the place was in question, Charleston was the fittest, as most accessible to the majority of the Socioties now organized: as a point, in short, to which, at the season proposed, the representatives of the Agricultural interest from every District in the State, would be found assembling for the more convenient arrangement of their private business.

This day being the Anniversary, there was a full attendance of the members.

An able Address was delivered by John M. Verdier, Esq., 1st Vice President, for which he received the thanks of the Society, with a request that he would furnish a copy for publication in the Southern Agriculturist.

The following Officers were re-elected for the ensuing year:

WM. ELLIOTT, *President.*
J. M. VERDIER, 1*st Vice President.*
EDWARD BARNWELL, 2*d Vice President.*
JOHN RICHARDSON, *Corresponding Secretary.*
RICHARD REYNOLDS, *Recording Secretary.*

Edmund Rhett, Esq., was then appointed to deliver the Address at the next Anniversary.

On motion, it was ordered that the foregoing proceedings be published.

JOHN RICHARDSON, *Cor. Secretary.*

American Gro de Naples Silk.—Mr. Whitmarsh, at the Silk Factory near South-street bridge, has now in process of weaving, a superior piece of Gro de Naples Silk, from the raw material grown by the daughter of an eminent Judge in Charleston, S. C. It was sent here to be dyed and manufactured for this young lady. The piece is about twenty-five yards in length, of a beautiful *ashes* color, and will doubtless compare with the imported Gro de Naples. In connexion with his item, we will state another interesting fact. Rev. Ezra Stiles, while President of Yale College in 1763, fed silk worms and raised the raw material sufficient to manufacture a dress for his lady. His MSS. Journal kept during the time, which is now in the possession of Dr. Stebbins, is a document of rare interest. The raw silk was sent out to London to be dyed and woven, but as there was not quite enough of it, his agent applied to Dr. Franklin, then resident there, who made up the deficiency from some American silk he then had in his possession, grown in Pennsylvania. It was dyed green and made into a splendid rich brocade, with beautiful sprigs woven into its surface. A specimen of the article and various other specimens of silk made from the raw material, raised by the Rev. Dr. are to be seen in his Journal annexed to his sketches of the mode in which he fed his worms, and how he produced his beautiful silk.—*Northampton Courier.*

Thomas Jefferson's Opinion of Farmers.—"Those who labor in the earth,' he early declared, "are the chosen people of God, if ever he had a chosen people, whose breasts he has made his peculiar deposite, for substantial and genuine virtue. It is the focus in which he keeps alive that sacred fire, which otherwise might escape from the surface of the earth. Corruption of morals in the mass of cultivators, is a phenomenon in which no one nor nation has found an example. It is the mark set on these, who not looking up to heaven, but to their own toil and industry, depend on the casualties and caprice of customers. Dependence begets subservience, and generally, suffocates the germ of virtue, and prepares fit tools for the designs of ambition. Thus the natural progress and consequence of the arts has sometimes, perhaps, been retarded by accidental circumstances, but generally speaking, the proportion which the aggregate of other citizens bear in the State, to that of the husbandman, is the proportion of its unsound to its healthy parts, and is a good enough barometer whereby to measure its degree of corruption."

Silk Worms Eggs.—Rearing of silk worms should bear in mind, that it is important to save eggs for the next year from the *first crop* for several reasons. It will secure them a supply, whatever accident may befall the second and third crops. But the most important objects accomplished by it, will be the prevention of any injury to the constitution of the insects, by retarding their hatching to all unnatural seasons. It is not known that the silk-worm will be injured at all by retarding their hatching, as we have not had sufficient experience, and probably the insects would not show it for some years; but it is not unreasonable to suppose that this violence, if continued for several years, might finally cause a serious constitutional injury. All danger of such a result can be avoided, in the way suggested above, as well as securing a supply for the next year. The eggs, as soon as lain, should be placed in an ice-house, in bottles or metal vessels, not made air tight—if sealed air tight, the eggs will be destroyed, as air is as necessary to them as to animals.—*Journal of the American Silk Society.*

Tribute to the Yankees.—M. Chevalier, in his Letters on North America, recently published, speaking of the enterprise and industry of the New Englanders, says:—"At Baltimore even as at Boston, in New-Orleans as at Salem, in New-York as at Portland, if they cite you a merchant who by intelligent combinations has realized and preserved a large fortune, and if you demand whence that man comes, it is a Yankee, is the reply. If in the South you pass before a plantation which appears better regulated than all the others, with fine avenues, and the habitations of the negroes better arranged and more comfortable—'Ah,' says one to you, 'this belongs to a man from New-England—he is a smart man.' In a village of Missouri, by the side of a house whose windows are broken, whose exterior is dirty, before the door of which is seen fighting the children, with tattered garments, you perceive another, all freshly painted, surrounded with a barrier, simple, but well preserved and lime washed, with a dozen trees well pruned, disposed all around; through the windows you distinguish, in a little saloon, shining with neatness, the young boys well combed, and the little girls clad almost in the last Parisian mode. Both of these habitations belong to farmers; but one comes from North-Carolina, the other has originated in New-England. On the river of the West, you hear cited a steam-boat to which no accident has ever happened.

which the travellers and the merchants seek with the greatest zeal—the captain is a Yankee. At New-Orleans, opposite the Levee, you perceive a fine building, which all the passengers admire—it is still a Yankee who owns it."

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A Recipe.—Amidst the numerous recipes for curing meat, I send for your approval, one which I have just copied from an English work, under the following portentous title,---

"*The Empress of Russia's Brine.*"—"Boil together, over a gentle fire, six pounds of common salt, two pounds of powdered loaf sugar. three ounces of saltpetre, and three gallons of spring water. Skim it while boiling, and when quite cold, pour it over the meat, every part of which must be covered with the brine.

Small pork will be sufficiently cured in four or five days; hams intended for drying, in two weeks, unless they are very large. The pickle may be used again and again, if it be fresh boiled up with a small addition of the ingredients. Before putting the meat into the brine soak it in water, press out the blood and wipe it clean."—*Farmers' Cabinet.*

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Cure for Scours in Horses.—Put into a junk bottle one pint of good gin and one ounce of indigo; shake well together, and turn it down him. I have known it, from personal observation, to have the desired effect, and complete a cure in a short time.—*Genesee Farmer.*

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To Cure Scours in Cattle.—A piece of common clay of the size of a goose egg burned till it becomes red, pulverized with the same quantity of hard wood coal, mixed with water and given to any kind of horned cattle, seldom fails to cure the worst cases of scouring. If one dose does not cure, try another.

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Dysentery.—Boiled milk thickened with flour, and taken in first stages of Dysentery is in all common cases an invaluable remedy. Boiled milk without flour is too harsh.

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Poisoning.—Two tea-spoon fulls of made mustard mixed in warm water is an immediate and effectual antidote for poisoning. It operates as an emetic.

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Cure for Diarrhaea.—The following is said to be a certain cure for diarrhæa: viz: "Parch half a pint of rice until it is perfectly brown. Boil it down as is usually done, and eat it slowly, and it will stop the most alarming diarrhæa in a few hours."

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Sore Eyes.—Take a piece of white vitriol the size of a large pea and dissolve it in a half ounce phial full of pure rain water, and wash the eyes with it three or four times a day. If it produces a very severe smarting, dilute it a little.

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For the Bite of a Snake.—Take the bark of yellow poplar and bruise it, and make a poultice of it, and apply it to the wound, bathing the arm or leg that is bitten with a strong decoction of the same, and let the person afflicted drink half a pint every hour. This is a safe and easy remedy, and will effect a cure in a short time.

Another.—Charcoal made into a paste with hogs lard is a grand antidote for snake bites. In bad cases it should be changed often. It will probably prove equally effectual for the sting of bees, and all other similar cases of poison.

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For Burns and Scalds.—Mix in a bottle three ounces of olive oil and four ounces of lime water. Apply the mixture to the part burned five or six times a day with a feather. Linseed oil is equally as good as olive oil.

Another.---Spread clarified honey upon a linen rag, and apply it to the burn immediately, and it will relieve the pain instantly, and heal the sore in a very short time.

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Ringworms.---Yellow dock root steeped in vinegar until the decoction is as strong as you can make it, and wash the ring-worm with it three or four times a day. This is said to be very efficacious for other humors.

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Valaable information to Artists and Antiquaries.—To copy inscriptions, take a sheet of tissue paper, hold it against or lay it on a brass or stone over the inscription; then take a rubber of list and a wash-leather, in alternate layer, rooled up to abaut an iuch in diameter, dip the end in black lead or lustre, finely pulverized, rub it steadily over the paper, and a most beautiful impression will appear.

For Sprains and Bruises.—Mix equal parts of beeves gall and vinegar; apply it often to the part injured, and dry it in by the fire.

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Tincture of Roses.—Take the leaves of the common rose, place them, without pressing them, in a bottle, pour good spirits of wine upon them, close the bottle, and let it stand until it is required for use. This tincture will keep for years, and yield a perfume little inferior to otto of roses; a few drops of it will suffice to impregnate the atmosphere of a room with a delicious odor. Common vinegar is greatly improved by a very small quantity being added to it.—*German paper.*

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On making a beautiful and lasting White Wash.—Take a quarter peck unslaked lime, pour on it a kettle of boiling water; while the lime is slaking, add half a gallon of stale chamber-lie; when the lime is perfectly slaked, dilute it with water to the proper consistence, and add to this mixture one quarter ounce of Prussian blue. This will give you a beautiful and lasting wash, that will neither peal off nor turn yellow, and will look nearly as well as white paint. By increasing the quantity of blue, you may make either a pale or dark blue, as best suits your taste—or if you prefer it, by adding yellow or red ochre, you may impart either of these tints to your wash.

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Sure method of putting out the fire of a Chimney.—The simplest method is to have always in the house a certain quantity of flour of sulphur, and in case of fire catching in the flue, take a handfull of it, which throw on the fire in the hearth, then stop the fire-place with either a wet sheet or blanket; in a few seconds the fire will be entirely out.—***Franklin Farmer.***

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Ducks and Politicians.—Cobbet once compared the interest excited by watching a certain politician's career, to that which is felt on witnessing a duck hunt; the principal curiosity being to guess, when the duck dives, where it will come up again.

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The New-Orleans Picayune says the times are harder than they were ever before known in that city,—that the stores are full of all kinds of goods, bnt nobody to buy them. The world will learn, by and by, that overtrading is not so good as producing.—***Boston Times.***

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Major Jack Downing says he has always noticed that those great heroes who are always talking of losing the last drop of their blood in the way of battle, are amazing careful how they spilt the first.

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A proper cause for Shooting an Intimate Friend.—It is said that the cause of the fatal duel between Messrs. Jones and Wilson, was the following words spoken by Mr. Wilson: "I know enough of Southern people to know that they *never* comply with their obligations." Mr. Jones took umbrage at this sweeping remark, and jealous of the honor of the South, demanded satisfaction, which was granted in accordance with the rules of honor.—***Mer. Jour.***

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We'll gaily chase dull care away,
And banish every sorrow;
Subscribers, pay your debts to-day,
And we'll pay ours to-morrow!